THE SOUTHWESTERN JOURNAL OF ANTHROPOLOGY is designed to include articles in all branches of anthropology relating to peoples and cultures, past and present, in any region. It is offered as a vehicle of expression for anthropologists in all parts of the world.

Manuscripts and other editorial materials should be addressed to the Editor, LESLIE SPIER, University of New Mexico, Albuquerque, New Mexico.

Subscription: $4.00 a calendar year (single number, $1.00). Foreign subscription, 1 £ sterling or its equivalent in local currency. Subscriptions should be sent to W. W. HILL, University of New Mexico, Albuquerque, New Mexico. (Remittance should be made payable to the SOUTHWESTERN JOURNAL OF ANTHROPOLOGY.)

Issued in quarterly numbers: Spring, Summer, Autumn, Winter of each year.

Microfilm copies of whole volumes of the SOUTHWESTERN JOURNAL OF ANTHROPOLOGY may be purchased for permanent files by libraries and other subscribers from UNIVERSITY MICROFILMS, 313 N. First Street, Ann Arbor, Michigan, to whom inquiries should be addressed.

Printed at the University of New Mexico Printing Plant.

Entered as second-class matter June 17, 1947, at Albuquerque, New Mexico, under Act of Congress of July 16, 1894.

SOUTHWESTERN JOURNAL
OF ANTHROPOLOGY

VOLUME 10 • NUMBER 3 • AUTUMN • 1954

RELIGION IN MIDDLE EASTERN, FAR EASTERN, AND WESTERN CULTURE[1]

RAPHAEL PATAI

IN THE FOLLOWING PAGES an attempt will be made to examine the role of religion in the three cultural archetypes of the Middle East, the Far East and the modern West. Geographically, the Middle East will be taken as the area stretching from Morocco and Rio de Oro to Afghanistan and Pakistan;[2] the Far East as composed of the Indian sub-continent, Southeast Asia, China and Japan; and the modern West as including all the countries in which Western civilization has reached its typical development, notably Western Europe and America north of the Rio Grande.

In trying to outline within the confines of a brief article the differential roles religion plays in the cultures of these three major world areas, generalization and disregard of detail will be inevitable. Only an attempt at a rough and over-all preliminary typology can be essayed to the neglect of extra-modal variants. Nor will particular doctrines and practices be emphasized. Whether divinity is conceived in polytheistic, trinitarian, dualistic or unitarian terms would appear irrelevant in relation to such a more basic question as: Is the religion centered around a personal deity or not? Similarly, rules of religious ritual must seem unimportant when interest is focussed primarily on the degree of influence religious ritual as a whole exerts upon everyday life.

The role religion plays and the position it holds in a culture can be discerned by examining various aspects of religion in their relationship to the total context of culture.

1 The author is indebted to Professors H. H. Rowley, F. S. C. Northrop, Edward J. Jurji, David Bidney, and to Dr Everett R. Clinchy for their comments on this paper.

2 For a justification of this definition of the Middle East see Patai, 1952.

In the first place, religion functions as a normative force regulating customary behavior, inasmuch as it has both positive and negative commandments with which the individual is expected to comply. The extent to which religious rules and teachings influence human activities and modes of thought varies from one culture to another. *The normative function* of religion can therefore be recognized as one of the variables in the relationship of religion and culture.

Another aspect of the relationship between religion and culture is reflected in *the psychological effect* of religion on emotional life. The quality as well as the intensity of this psychological effect of religion can vary from culture to culture and thus supply us with a second variable.

A third variable can be seen in the character of the general orientation of the teachings of religion concerning supernatural beings, forces, or things. As a rule religions deal to some extent with the supernatural and possess certain theologies and metaphysics. An examination of the general character of the religious teachings concerning *the supernatural component* yields the third variable.

Each religion also has a definite outlook on its own value in relation to that of other religions. Its relationship to other religions may range from complete toleration to the complete lack of it, with a corresponding range of self-evaluation. This variable, best called *religio-centrism* (on the analogy of ethnocentrism), can serve as an additional avenue of approach to the study of our subject.

Lastly, religions channel human ambitions towards different goals, and especially in adversity and suffering hold out to man comforts of varying types. This *teleological or purposive orientation* of religion will serve then as the fifth and last variable in examining the role of religion in Middle Eastern, Far Eastern, and modern Western cultures.

I. THE NORMATIVE FUNCTION

In a study dealing with the general cultural characteristics of the Middle East, the religious component of Middle Eastern culture has been characterized as permeating the totality of life and as holding supreme sway over performance, thinking, and feeling—in brief, over life as a whole. Religion is the fundamental motivating force in most phases and aspects of culture, and is in evidence in practically every act and moment of existence. The observance of the traditional forms and rites—whether of the "official" or of the popular kind—is an integral part of everyday life.

A close connection exists between religion and other aspects of culture in the Middle East. Art in its entire scope is closely circumscribed by religion, and all the arts serve primarily religious purposes.

All custom and tradition is basically religious; for whatever is old and customary and traditional is hallowed by religion. Religious practice itself is mainly tradition and custom, so that practically every act and every activity is either in conformity with or contrary to religion.[3] These observations hold equally good for Islam which is the religion of about ninety percent of the population of the Middle East, for the Eastern Christian churches, and for Judaism in its Middle Eastern form. In brief, religion in the Middle East is the main normative force.

In these traits Middle Eastern religion closely approximates Far Eastern religions.

Hinduism, the closest major eastern neighbor of Islam,

> deals directly with the Hindu's total life, including morals, economics, politics, and even music, medicine, military science, architecture, phonetics, grammar, astronomy and ceremonial. Hindus may include all these in what they call religion.[4] Correct caste behavior is enforced largely by the weight of religious sanction. . . . Religion enters into all phases of Hindu life. Washing oneself in the morning, preparing and eating meals, sowing the fields take on sacramental quality when performed with the appropriate ritual. Religious merit is acquired as much by simple adherence to one's caste conventions and family obligations as by any special act of worship. . . . The cultural life of the village is almost completely bound up with religious observances and religious holidays. . . . Hinduism and Islam . . . provide the sanction which gives each individual his place in society, his code of social relations, and his guide to personal behavior. . . .[5]

Similarly Buddhism, the dominant religion of southeast Asia, Ceylon, and Tibet, which is highly influential also in India, China, Korea and Japan, is "a pervasive influence shaping men's attitudes towards life and their ultimate aspirations and hopes far more than appears on the surface of things." The Buddhist teachings extend into such fields as the relationship of parents and children, teachers and disciples, husbands and wives, friend and friend, masters and servants, laymen and monks, and include such details as e.g., the recreations and luxuries a master should provide for his servant.[6]

In China in general, "religion and conduct belong together. . . . Religion in China is connected with politics. It expresses the emotional and esthetic aspects of life while conduct and politics express the active aspects."[7]

Taoism, the Chinese philosophical religion, contains, in addition to its mystical

---

3 *Idem*, pp. 18-19.
4 Archer, 1947, p. 49.
5 Thorner, 1949, pp. 571, 574, 577, 646.
6 Reischauer, 1947, pp. 138, 105-106.
7 Hodous, 1947, pp. 41-42.

element, a set of political principles, a philosophy of government, a number of economic principles and moral precepts, and gave rise to a large number of societies or brotherhoods which were a powerful ethical force elevating the moral tone of the community, ministering to the wounded, the refugees, and the needy, and often robbing the rich to help the poor.[8]

Confucianism, several centuries older in China than Taoism, has ethical teachings close to those of Buddhism. Its relationship to the arts can be gauged from the following saying contained in the Confucianist Book of Rites: "Poetry is what gives the first stimulus to character; ceremonial is what gives it stability; music is what brings it to full development."[9] Confucian doctrines are replete with detailed rules (in the form of good advice or "wisdom") with regard to conduct, the attainment of happiness, and the ordering of life.[10] The "New Life Movement" established by Chiang Kai-Shek at Nanchang in 1934, which has a close kinship with Confucianism, advocates that "life should be artistic"; that "the people are to be trained to take a new attitude toward nature as revealed in modern science"; that "tidiness and truthfulness should be emulated" and the like.[11]

These few instances suffice to show that basically common features characterize the normative function of religion within the totality of culture in the Middle East and in the Far East. In both areas religion is a major factor, if not the major factor, in directing and regulating life.

Religion in the Western world differs from both Middle Eastern and Far Eastern religion insofar as since the onset of the industrial revolution it has been on the retreat. The dominating religion of the West, Christianity, although originally born in the same region which was the cradle of Judaism and Islam—the central part of the Middle East—and partaking of the same general characteristics which these two creeds have or had in common with the religions of the Far East, has profoundly changed its character since the emergence of modern Western civilization. The function of religion, as it can be observed today in the modern Western world, is restricted to a rather narrowly delimited field of its own. Its ritual and its practical precepts have little to do with the everyday pursuits of Western life, and its credos and tenets are equally divorced from the essentially secular goals and values of modern Western culture. Even in the lives

8 *Idem*, pp. 24-43.
9 *Idem*, pp. 6-7.
10 *Idem*, pp. 7-18.
11 *Idem*, p. 20.

of those religiously observant, an hour or two a week set aside for the satisfaction of the traditionally persisting religious needs are deemed sufficient.

Furthermore, while both in the Middle East and in the Far East the great majority of the people are religious, and with the exception of those regions where the impact of Westernization has considerably altered the situation, persons whose lives are not dominated by religion are few and exceptional, in the modern West (and especially in the highly urbanized areas) the majority of the population does no longer possess deep religious attachment but is religiously either lukewarm or indifferent.[12]

Religion in the Middle East and the Far East thus appears as the dominant normative force, while in the modern West it has largely ceased to be a significant normative factor.

II. THE PSYCHOLOGICAL EFFECT

In the Middle East, religion is an asset the psychological value of which cannot be overestimated. It is a psychological factor of first-class magnitude, lending unfailing spiritual sustenance to all true believers, that is to the overwhelming majority of the population. The religious Middle Easterner appraises life with all its adversities and vicissitudes from a wider angle, from a long-range perspective as it were, in which sojourn on this earth with all its possible gains and losses appears as merely the lower and lesser half of the great totality of existence, the essentials and ultimates of which lie in the Beyond. Spiritual outlook thus moves along a higher plane, beyond the reaches of discomfort, pain, anguish, and privation. Hence that composure, that peace of mind even in the face of great adversity which in the Middle East ever and again gives rise to wonderment in the Western observer.[13]

Rebecca West noted this phenomenon as far west as among the Moslems of Bosnia. Comparing her Christian Bosnian guide with his Moslem neighbors, she observed: "The lad was worse off for being a Christian; he had not that air of being sustained in his poverty by secret spiritual funds that is so noticeable in the poverty-stricken Moslem."[14]

In the Middle East proper, no such distinction between Islam and other faiths is apparent with respect to what can be termed the spiritual sustaining power of religion. The different rites of Islam, the semi-Moslem sects (such as that of the Druzes, the Nusairis, etc.), the various Christian churches, and the Oriental

12 Wach, 1944, pp. 274 ff.
13 Patai, 1952, p. 20.
14 West, 1943, p. 298, as quoted by Northrop, 1946, p. 431.

Jewish communities, all share this basic characteristic of being able to generate a psychological certainty of possessing the Truth, of following the Right Path, and of wielding the Perfect Key to the gates of the Great Beyond. Among them is the feeling that one does what is right because one observes the commandments of one's religion, and that one is inwardly protected from serious harm because God in whom one trusts keeps an eye on each individual and ultimately metes out just retribution. These convictions give the true believers of every faith, creed, and sect an extraordinary sense of security, an ability to preserve their calm and dignity and detachment, without depriving them of the ability to seek and enjoy whatever pleasures can be wrung from this world.

The same psychological effect of religion can be observed in the Far East.

In India, where as we have seen religion pervades all aspects of life, it constitutes, just as in the Middle East, a sustaining force of matchless effectiveness. Religion functions as a sort of protecting caul which envelopes the human on his way from birth to death leaving him psychologically unscathed by the poverty, ill-health, misery, and suffering which are the inevitable concomitants of life for the great majority of Indians. No matter what his religious group, his total life is a religious life, and in its pursuit he attains security and self-confidence.

The "liberated living man" who has attained spiritual perfection is characterized in the *Yogavisistha* as follows:

> Pleasures do not delight him; pains do not distress. There is no feeling of like or dislike produced in his mind even towards serious, violent, and continued states of pleasure or pain. . . . He rests unagitated in the Supreme Bliss. . . . He is full of mercy and magnanimity even when surrounded by enemies. . . .[14a]

Farther to the east, the same religious mentality characterizes the followers of Buddhism, Taoism, and Confucianism. Younghill Kang, describing his native Korean village, says:

> . . . my family did not seem to mind their helpless poverty, since most of them were indulging in the mystical doctrine of Buddhism, or in the classics of Confucius, who always advocated that a man should not be ashamed of coarse food, humble clothing, and modest dwelling. . . . The sage said: "Living on coarse rice and water, with bent arm for pillow, mirth may yet be mine. . . ." My grandmother . . . was a true Oriental woman. The quietism of Buddha, the mysterious calm of Taoism, the ethical insight of Confucianism all helped to make her an unusually refined personality. . . .[15]

Speaking of Asia in general, Kurt Singer remarks: "Oriental harmony . . .

14a Atreya, 1953, p. 144.

15 Kang, 1931, pp. 7, 12; Kang, 1937, p. 233, as quoted by Northrop, 1946, p. 314.

is a mood in which Oriental man accepts both peace and strife as he accepts the change from light to darkness, summer and autumn, life and death. . . ." Therefore, ". . . life in the Orient is happier and more harmonious than in the west. . . ."[16] Similarly Northrop notes "the equanimity, the poise, the steady, sure peace of mind, and all-embracing calmness and joy of the Oriental. . . ."[17]

Compared with this gift bestowed by religion upon Middle Eastern and Far Eastern man, Western religion must indeed seem pallid and impotent. The Bosnian observation of Rebecca West can be generalized, for the impression that religion in the West has remained a sustaining force only in rare cases thrusts itself even upon the most casual observer. In a society in which religion is detached from the chief interests and pursuits of everyday life, in which the principle of separation of church and state is upheld, and where the desire to attain purely secular aims is the main incentive in human life, religion must have evidently lost any spiritual sustaining power it may have had in the past. Toynbee speaks of "the spiritual vacuum which has been hollowed in our Western hearts by the progressive decay of religious belief that has been going on for some two-and-a-half centuries."[18]

Minor undulations in the psychological influence of religion can, it is true, be observed. In times of stress and strain there is a certain religious resurgence. But these waves even when at their peak, remain far below the high and steady level maintained by the powerful outpour of psychological sustenance emanating from religion in the Middle East and the Far East.

III. THE SUPERNATURAL COMPONENT

The supernatural component of religion has to be dealt with on two levels: the doctrinary or official level and the popular level.

The official doctrines about the supernatural are contained, in all the three world-areas examined here, in voluminous religious literatures the composition of which was effected in the course of several centuries, and the older layers of which have acquired a character of sanctity. The degree of conformity evinced by the actually maintained beliefs as to the supernatural depends as a rule on the extent of the individual's absorption of the traditional literature of his religion. On the popular level, that is among the great masses of the people, where the familiarity with the traditional literature is minimal, the conformity

16 Singer, 1949, pp. 50-52.

17 Northrop, 1946, p. 388; cf. also p. 496, where in the closing sentence of the book the same statement is repeated with slight variations.

18 Toynbee, 1947, p. 487.

of the concept of the supernatural with that of the official doctrine is very slight.

Middle Eastern religions in their supernatural aspect occupy an intermediary position between the religions of the Far East and of the modern West, inasmuch as on the popular level their typological affinities definitely lie with the Far Eastern religions while on the official doctrinary level they and the Western religions belong to one group.

That the popular religious beliefs and practices of Judaism, Christianity, and Islam in the Middle East are practically identical, has not escaped the keen eye of Lane well over a hundred years ago. "It is a very remarkable trait," he wrote in the 1830's, "in the character of the people of Egypt and other countries of the East, that Muslims, Christians and Jews adopt each other's superstitions, while they abhor the leading doctrines of each other's faiths."[19] Likewise, a more general similarity can be observed, not in the concrete details, but in the over-all type of popular religious beliefs and practices of the Middle East as a whole on the one hand and of the Far East as a whole on the other.

Popular religious belief in both world-areas can best be described as polytheo-demonistic, with complementary practices carried out at innumerable shrines, temples, and sanctuaries. A large plurality of gods, godlings, heroes, demons, ancestors, and patron-saints are believed in, sculpturally or symbolically represented, and served in a great variety of rites in Japan, China, Indonesia, Indochina, and India. In China, ancestor worship added considerably to the number of the available deities, while in India to the hosts of gods and goddesses are added sacred animals, rivers, and the like. In the Middle East, the worship of holy or merely haunted spots marked by fountains, trees, and stones, or of shrines supposed to be the tombs of saints, is the popular institutionalized and formalized expression of a polydemonistic belief in spirits, ghouls, afrits, jinns, and other demons whose numbers are legion and who constantly interfere with the lives of men. Formless powers and forces, such as the much sought-after *baraka* or holiness, or the greatly feared evil eye, round up the picture of popular Middle Eastern religion.

Little of this type of popular religiosity has survived in the modern West. To be sure, in countries or regions where old local folk-cultures still linger on, as for instance amidst the agricultural peasantry of Europe, the popular veneration and worship of saints, as well as the belief in demons and spirits, in the evil eye and other supernatural powers, are the truly forceful elements of religious life. The spiritual distance between this type of religion and that of the official

19 Lane, 1871, vol. 1, p. 297.

exponents of the faith can be visualized if one thinks of the Christianity of an Italian fishing-village in comparison with that of the Vatican. In the urban population of industrialized Western Europe or in America north of the Rio Grande, however, this type of popular religion is practically extinct or is on its way to becoming so, and the chief difference between the religion of the people and that of the official religious leadership is one of degree rather than one of kind. It is only the religious leadership whose life is mainly concerned with religion, while in the life of the simple people religion plays, as has been pointed out above, a negligible role. The average individual, even if he is a member of a church or a religious community, will know very little of the officially sanctioned religious doctrines of his faith; but he will as a rule not hold beliefs or practice religious rites contrary to those of his church (as this is the case in the Middle East). He will simply neglect out of ignorance or indifference the rites of his church, and will have little knowledge of and even less interest in the doctrines of his church concerning the supernatural.

While with regard to the popular side of the relationship to the supernatural in the three world-areas the line of demarcation thus clearly runs between the West and the Middle East, the official doctrine concerning the supernatural shows a basic typological homogeneity in the West and the Middle East setting both apart from the religions of the Far East.

Far Eastern religions—with the exception of Japanese Shintoism which, however, need not concern us in this context—are basically *non-theistic* in their original unadulterated doctrines, while Middle Eastern and Western religions in the official formulation of their tenets are *theistic*, or more precisely *monotheistic*. Theism in religion, as defined by Northrop,

> is the thesis that the divine is identified with an immortal, non-transitory factor in the nature of things, which is determinate in character. A theistic God is one whose character can be conveyed positively by a determinate thesis. His nature is describable in terms of specific attributes.[20]

Monotheism, therefore, is the doctrine of *one* theistic God whose nature is describable in terms of specific attributes. The belief in such a God, as characterized by his determinate attributes, is the basic creed of the theistic religions.

Students of Far Eastern religions (again with the exception of Shinto) are unanimous in describing them not merely as non-theistic but also as non-creedal. John Clark Archer has commented upon the noticeable absence from Hinduism of formalized creed and characterized it as "theologically non-creedal."[21] Of the

20 Northrop, 1946, p. 401.
21 Archer, 1947, p. 51.

six recognized Hindu religio-philosophical systems only one, the Vedanta, is concerned with the concept of the divine. According to the Vedanta doctrine, however, Brahman (God) is indefinable, since every predicate, even the most general and indefinite, implies a contrary, an opposite, and besides Brahman there is non-else; he is all-pervading, all-comprising. In Shankara's formulation of the Vedanta there seems to be no place left for "faith" as a positive experience,[22] or a positive belief in some eternal which is determinate in character.[23]

It is difficult to reduce to a common denominator the teachings of the numerous schools of thought of Buddhism in the several countries in which they developed. Reischauer states that

> there are a good many of the better educated and liberal leaders [of Buddhism] who claim that the very essence of true Buddhism is not a fixed or unchanging doctrine but rather a certain attitude of mind, a spirit of free inquiry and passion for truth.[24]

This non-creedal character of modern Buddhism is completely in keeping with the original non-creedal and non-theistic formulation of Buddha's teachings. As a Japanese authority on Buddhism put it, "Buddhism teaches that there is no personal creator or ruler of the world."[25]

Confucianism, although it enjoins the worship of Heaven and Earth, of Confucius himself, of imperial and other ancestors and heroes, has never attained a theistic quality, and does not concern itself with the supernatural. It recognizes the divine, but as the divine is not determinate, it cannot have a concept of it, only a name for it. Moreover, it can realize it in experience but not say what it is in terms of determinate qualities.[23] Taoism centers around

> the physical concept of the way of the heavens in relation to earth, transfigured and deepened by the mystic trance. The Tao is universal but not transcendent.[26] It produces all and yet is not above all. It is not a person or an individual. It is the basic, cosmic energy which informs all.[27]

The numerous religious societies which spring up in China to meet critical situations, "have no creed but they have a ritual."[28]

---

22 Geden, 1913, p. 285; Archer, 1947, p. 76.

23 Passages followed by this reference number are based on written communications from Professor F. S. C. Northrop.

24 Reischauer, 1947, p. 139.

25 Anesaki, 1918, p. 166.

26 One must carefully distinguish between this Western term and the Eastern concept of "transcendence." In the Eastern sense the Tao transcends sense objects. Cf. Northrop, 1944, p. 219.

27 Hodous, 1947, pp. 24-25.

28 *Idem*, p. 40.

Hinduism, Buddhism, Confucianism, and Taoism are thus in their uncorrupted form non-theistic and non-creedal, all of them holding that the divine is indeterminate and that no specific attributes can be ascribed to it. In contrast to them the religions of the Middle East and the West are both theistic and creedal.

The chief source of Moslem religious doctrine, the Koran, as well as later theological writings, is replete with divine appellatives and attributes the study of which developed into a formidable science at a relatively early date in the history of Islam. The determinate attributes of Allah are grouped under the seven headings of Life, Knowledge, Power, Will, Hearing, Seeing, and Speech,[29] in addition to which he is described as merciful, gracious, the guardian over all, the reviver, the deliverer, and other such terms totaling ninety-nine in number.

Similarly in Christian theology God is described as a supreme being whose attributes include, to mention only a few, infinite power, wisdom, goodness, who has an inscrutable will and holds sovereign dominion over the world.[30]

Much of both the Moslem and the Christian doctrines of God goes ultimately back to the Hebrew Bible in which God is described by a rich variety of moral excellencies, including power, wisdom, foresight, righteousness, love, mercy, and loving-kindness. Post-Biblical Jewish literature repeatedly contains lengthy enumerations of these and other divine attributes.

With regard to the supernatural aspect, Far Eastern religions are thus found to be polytheo-demonistic on the popular level and non-theistic on the higher doctrinary level; Middle Eastern religions—polytheo-demonistic on the popular level and monotheistic on the higher doctrinary level; Western religions—polytheo-demonistic on the folk-culture level, indifferently monotheistic on the modern popular level, and exclusively monotheistic on the official religious level.

IV. THE RELIGIO-CENTRIC ASPECT

One of the significant characteristics of the Far Eastern non-theistic religions is the high degree of toleration they display toward other religions. This trait is usually accompanied by a merging or fusion of different religions. Religious jealousy or exclusiveness, the conviction that one's own religion is the only valid and true one and that all other faiths are necessarily erroneous, is rare and is frowned upon.

While Europe (and the West as a whole) is predominantly Christian, and the Middle East is equally predominantly Moslem, no such exclusive and homogeneous religious characteristic exists in the Far East. Religious pluralism is the rule,

29 Sell, 1913, p. 300.
30 Davison, 1913, pp. 265 ff.

however narrowly one tries to define the geographical unit which is subjected to scrutiny. Members of the same family, or even single individuals, often belong to two or more religions simultaneously, or, in other cases, alternatingly. Not only is there no stigma attached (as there is in the West and the Middle East) to such religious change-overs; they are taken as manifestations of a commendably sincere quest for the Truth.

Seekers for truth are likened in an ancient Oriental parable to people setting out from different starting points to climb a high mountain. The peak is too steep for the climbers to aim directly upward, so each of them begins spiralling the slopes in different directions. When two of the climbers meet somewhere, both may be convinced that the other is on a false track since he is going in an opposite direction. But actually, of course, though following different paths, both and all aim toward the same truth symbolized by one and the same lofty summit.

Just as Far Eastern religions are non-creedal and non-theistic, they are also non-aggressive, tolerant, and non-proselytizing. They do not require of their adherents, as Western and Middle Eastern religions do, to believe that their own teachings are the embodiment of the only true and perfect faith and that all other religions are bogged down in ignorance and error. They freely borrow from one another, and incorporate even substantial teachings taken from different schools.

In India,

> Hinduism . . . is as much Buddhist as it is Brahman. The Tantric doctrines . . . appear as much in the Buddhism of Tibet as they do in the Hinduism of India. Recently, Surendranath Dasgupta, the leader of the contemporary Indian philosophical and religious thought, has proposed an actual practical unification of Buddhism and Hinduism.[31]

As a modern Indian philosopher has put it

> Every seeker of truth and perfection is allowed in Hindu society to pursue his own method freely, and nobody is expected to interfere or meddle with it. . . . This tolerance of differences of opinion and creed within its own fold and even outside itself is an essential characteristic of Indian culture.[31a]

The same open-minded receptiveness characterizes the Hindu approach to Western religions. As already Max Weber has pointed out, a Hindu could accept the most specifically Christian sectarian doctrines without ceasing to be a Hindu. In fact the extreme religious "tolerance" characteristic of Hinduism appeared to

31 Northrop, 1946, p. 409.
31a Atreya, 1953, p. 126.

Weber to have reached such a level as to make him conclude that "Hinduism is something different from 'religion' in our sense of the word."[32]

In Indo-China, in Annam, Cochin China, and Tonkin, "a peculiar combination of Confucianism, Taoism and Buddhism prevails. . . ." The official religion of the Annamese empire included Confucianist, Buddhist, and Taoist elements all intermixed, yet it remained essentially a combination of magic, animism, and ancestor worship.[33]

Passing on to China, we again find that

> religion in China does not follow the pattern of interreligious exclusiveness of the West. . . . The temples are dedicated to a variety of gods. . . . There is one temple in this region which houses Confucius, Laotze (Founder of Taoism), and Buddha. This mixture is seen everywhere in China. . . .[34] Individual Chinese or Korean families are often composed of Confucians, Taoists, and Buddhists . . . and even single individuals accept all three religions at once.[35]

Some of the numerous religious societies the emergence of which in times of crisis is characteristic of China, "placed above their old gods the God of all religions. Christianity, Islam, Buddhism, Confucianism and Taoism were viewed as ways of salvation under the direction of the God of all Religions."[36]

The same is reported of Japan. "Japanese . . . rarely accept one religious sect to the exclusion of others; almost everyone considers himself at once a Buddhist, a Shintoist, and a Confucian. Individuals worship any deity regardless of cult-affiliation. . . ."[37] Or, as observed by another student of Far Eastern religions: ". . . in countries like China and Japan many of the adherents of Buddhism at the same time give allegiance to the original national faiths. . . ."[38]

All this sounds as alien to anyone brought up in one of the three monotheistic religions which originated in the Middle East, as the monotheistic religious exclusiveness and aggressiveness appears "narrow, intolerant and provincial"[39] to Far Easterners reared in one or more of their non-theistic religions. As Krishnalal Shridharani wrote,

> It is forgivable to insist on *one* God, but to insist upon *The* Prophet and *The* Law is intellectually wrong. The assertion of Louis XIV that "I am The State" is quite

32 Weber, 1923, vol. 2, pp. 22, 24.
33 Kennedy, 1949, pp. 675, 677.
34 Hsu, 1949, p. 776.
35 Northrop, 1946, pp. 409-410.
36 Hodous, 1947, p. 41.
37 Haring, 1949, p. 856.
38 Reischauer, 1947, p. 90.
39 Northrop, 1946, p. 412.

innocent compared to anyone's assertion that "I am The Law." . . . This exclusiveness is antispiritual inasmuch as it is overweening in the light of the limitations of human perception.[40]

Western observers as well noted the "enormity of intolerance and persecution [which] has shown its hideous countenance, almost without fail, whenever and wherever a higher religion has been preached,"[41] such as Biblical Judaism and its daughter-religions, Christianity and Islam. In Christian Europe, religious conformity was a matter upon which the local secular power felt called upon to rule, if necessary by armed force.

. . . In Central Europe . . . the secular princes did successfully use their power to force down the throats of their subjects whichever of the competing varieties of Western Christianity the local potentate happened to favour.[42]

Speaking of the theistic religions of the Middle East and the West, Northrop observes:

All the theistic religions are aggressive, all except recent Judaism are dominated by a missionary zeal, and all tend to regard religious views other than their own as heathen, erroneous, or inferior. Each tends to have a provincial self-righteousness which assumes that its doctrine is completely perfect, and consequently that its adherents are divinely commissioned and by duty bound to replace all other religions with "the one perfect religion."[43]

The basically different self-evaluation of theistic religions in relation to other religions from that of non-theistic religions explains the significant difference in geographic distribution between the two types of religions. Since theistic religions are by their very nature doctrinary, creedal, aggressive, intolerant, and proselytizing, each one of them, as occasion arose, tended to establish itself as the only religion in the territory or region in which it won for itself a majority position or in which it attained the physical ability of doing so. Adherents of other religions were either expelled, or forcibly converted, or, in exceptional cases, allowed to remain as "tolerated" and "protected" peoples, in residentially and socially segregated, despised, and disliked groups. As a result of this, Europe and America became compactly Christian continents, all the natives of the former (with the exception of a small Moslem island in the Balkans) and practically all of the latter having been converted to one or another variety of Christianity. The fate of the Jews in Europe, as a group stubbornly adhering to an alien religion, at times

40 Shridharani, 1943, p. 298.
41 Toynbee, 1947, pp. 299-300.
42 *Idem*, p. 485.
43 Northrop, 1946, p. 411.

persecuted and at times tolerated, is too well known to need more than passing mention.

To the south and the east of Christian Europe, Islam established itself in a similarly compact and definite block. The Islamization of the entire Middle East from Morocco and Rio de Oro in the west to Turkestan, Afghanistan, and what is today Pakistan in the east, was a rapid process accomplished in a phenomenally short time. In close analogy to the Christian *Ecclesia militans,* the spread of Islam by force was made a principle: *Din Muhammad bissayf*—the religion of Muhammad with the sword. The result was a geographical region as exclusively Moslem as Europe became Christian. Where the two met, they fought, until one of them was completely defeated and had to retreat, as best exemplified by medieval Spain, or the flow and ebb of Turkish power in Hungary in the sixteenth to eighteenth centuries. After the Moslem retreat from those European countries no trace was allowed to remain of its long rule: no Moslem community or group was left behind; the population as a whole reverted to Christianity or was replaced by Christians. In the south and the east, on the other hand, Islam was more successful than Christianity in its proselytizing activities. In the twentieth century its boundaries are still pushing southward across the Sudan belt into Negro Africa, and are being strengthened in Indonesia and other parts of the Far East. What is happening to Islam's Central Asian outpost is little known; the Iron Curtain guards its secrets well.

While the traditional adherent of Judaism, Christianity, and Islam remains to this day convinced that only his religion, or more narrowly, only his own particular sect, is the sole holder of the truth, including the only true ritual, the general attitude towards religious and sectarian differences, at least as far as Christianity is concerned, underwent a decisive change since the second half of the seventeenth century.

> In this half century the Catholic and Protestant factions . . . seem to have become aware that they no longer cared sufficiently for the theological issues at stake to relish making any further sacrifices for their sake. They repudiated the traditional virtue of "enthusiasm" (which by derivation means being filled with the spirit of God) and henceforth regarded it as a vice.[44]

This toleration of religions in Christian Europe, however, was based on "disillusionment, apprehension and cynicism. It was not an arduous achievement of religious fervour but a facile by-product of its abatement."[45]

We thus recognize that in the Far East religious toleration is a result of the

44 Toynbee, 1947, pp. 300-301.
45 *Idem,* p. 553.

deep religiosity characteristic of its cultures, while in the West, and to some extent in the Middle East as well, religious tolerance emerged as a result of a general and successive liberation of the cultures from the grip of religion. In the Far East, the more religious a person is the more tolerant he is of other religions, the more ready he is to concede that other religions also have their values, their truths, and their "paths." In the Middle East and the West, tolerance of other religions stands as a rule in reverse ratio to the fervor with which an individual follows the precepts of his own religion.

V. THE TELEOLOGICAL ORIENTATION

The last aspect of religion to be considered here is its teleological or purposive orientation, with respect to which it again is found that Middle Eastern religion has close affinities with Western religion, while both differ greatly from Far Eastern religions.

The ultimate aim of religion is to satisfy certain spiritual needs of which man is aware at varying frequencies, and to help him in the crises and other difficulties which he inevitably meets as he makes his way from cradle to grave. In the three world-areas under scrutiny we find that this basic purpose is served either by supplying psychological satisfaction to this-wordly aspirations of man; or by giving his ambitions an other-wordly orientation; or by a combination of both.

Confucianism exemplifies the first of these three ways. Although in every other respect it belongs closely together with the other Far Eastern non-creedal and non-theistic religions, "it has almost no other-wordly content, confining itself to practical maxims on the sensible conduct of life in this world."[46] Confucianism offers its followers a satisfactory cosmology, and detailed ethical doctrines, concentrating especially on the duties and obligations of people standing in certain social or familial relationship to one another. A worship of Heaven and Earth, of imperial ancestors and heroes with appropriate and well ordered ritual rounds out the picture.[47] This is a religion eminently suited to human needs as channeled by Chinese culture—as long as things are more or less in good order. Chinese observers themselves noted, however, that when confronted with tragedy and death, their compatriots tend to become Buddhists[48] or Taoists. In funeral processions, e.g., Confucianist families often employ a group of Taoist and/or Buddhist monks.[49] Moreover, it can be stated that Confucianism pure and undi-

46 Northrop, 1952, p. 77.
47 Hodous, 1947, pp. 1-23.
48 Northrop, 1946, p. 339.
49 Oral information supplied by my student, Mr Timothy Lin.

luted is a relatively rare phenomenon; in most cases it is merely one of the threads which go into the texture of religious life in China.

With the exception of Confucianism (and Shintoism, which on account of its theistic content and aggressive character is not considered in this paper among the Far Eastern religions), Far Eastern religions typically satisfy human psychological needs by giving them an other-wordly orientation. This world is regarded as a vale of tears into which man is born against his will. The ultimate goal which man can obtain and which he therefore should try to achieve lies in the Beyond, in a remote state of peace which man can reach either directly upon his death, or, in accordance with most teachings, after a series of rebirths and reincarnations in various human or other forms.

This other-wordly orientation given to life by religion goes in the case of Hinduism hand in hand with a basically pessimistic attitude towards this world. According to Shankara, only the spiritual has reality, all else is sheer illusion, or *maya*. Life goes on by karmic repetition; deeds and rebirth are causally related. Man has to accept his lot, and "live at best within it in the distant hope that the round would eventually be broken and his spirit would escape to another, agreeable portion of the fixed universe, whence he would not come back again to birth."[50] Only if one is able to find the true self can one escape karma and yet remain in the world bringing spiritual equanimity into it.[23]

The same idea is further developed in Buddhism. Buddha is told to have said: "I have obtained emancipation by the destruction of desire. . . . I have obtained coolness (by extinction of passions) and have obtained *Nirvana*. . . ."[51] Human life is predominantly an existence of suffering. Conditions of individual existence are painful; whatever pleasures and satisfactions may exist in life are overshadowed by pain and sorrow. The best in life is fleeting and impermanent. This is the first of the "Four Noble Truths" of Buddha. The second is that the cause of human suffering is human desire and cravings. The third and the fourth truths state that man can conquer his craving thirst by following the "Noble Eightfold Path" which includes the renunciation of the life of pleasure, the nurturing of the spirit, moral conduct, peaceful occupations, the suppression of evil states of mind, strict self-discipline, a concentration of mind and meditation, until an understanding of the nature of the self is achieved, with a complete freedom from all passions and fetters binding one to this life. Thus prepared, the enlightened self can enter a state of peace, or *Nirvana*, and thus "gain release

50 Archer, 1947, pp. 62, 75, 88.
51 Reischauer, 1947, p. 97.

from 'rounds of existence' in this evil world." *Nirvana,* however, remains a distant hope. In the meantime, man's efforts should be directed toward attaining a more favorable rebirth into this world. This can be effected by following certain ideals of conduct, namely the "five precepts" forbidding the destruction of life, theft, unchastity, falsehoods, and strong drink.[52]

Also according to Taoist doctrine, the sensuous world is a mere appearance. "Long life was not in the tradition of Taoism. The ancient Taoists regarded the body as not worth preserving. . . ." Under the influence of Buddhism, also in Taoism a

> moral relation was established between this life and the condition of the soul beyond this life by the theory of karma, the equivalence of deed and reward. This proved a great boon in easing the tensions of life. Poverty and wealth, sickness and health, happiness and misfortune were not only explained by this formula, but were made endurable.

The northern school of Taoism in modern China "emphasizes meditation, and metaphysical speculation, and practices breathing."[53]

For all these religions Kurt Singer's generalization holds good:

> It is a basic tendency of the Asiatic mind to keep aloof from every thought that hinders him in his great movement of withdrawal from the world, an illusory veil to be cast off by him who is awakened, a tiny shore which must be left in order to reach the infinite expanses of the Great Void.[54]

No such other-wordliness, no such exclusive concentration on spiritual or meditational detachment characterizes the three theistic religions of Judaism, Christianity, and Islam. These three Middle Eastern and Western religions emphasize more or less equally the material well-being of the individual in this world, and the spiritual well-being or salvation of his individual soul after the death of the body. They therefore represent a combination of this-wordly and other-wordly orientations. While spiritual and moral values are stressed, these are underlined or reinforced by concretely formulated and tangible promises of rewards in the future life for good conduct, or alternatively, punishments for rebelliousness and disobedience. The amount of stress put in Judaism, Christianity, and Islam, as well as in the different sects of the latter two, on the belief in Paradise or Heaven for the good and on Purgatory or Hell for the evil, varies; but common to all is the accent on divine justice tempered with mercy which measures out reward and punishment to each individual according to his deeds

52 *Idem,* pp. 98-100, 103, 105.
53 Hodous, 1947, pp. 27, 32, 37, 39.
54 Singer, 1949, p. 52.

which after death are carefully weighed and evaluated. It is therefore, in the well-conceived self interest of every individual (inasmuch as he is a believer) to pay as much attention as he can to the salvation of his soul. This can be achieved by following the precepts of one's church or religion or sect with regard to one's duties towards fellow-men and towards the deity. The duties towards one's fellow-men are mainly deedal, that is consist of dos and don'ts, while the duties towards God are both creedal and deedal in varying combinations.

Simultaneously, however, both deed and creed aim at a second, and often more important, end: to assure and secure the material well-being of the individual and his society in this world. One must believe in the particular credos of one's religion or sect and fulfill the various dos and don'ts in relation to both God and fellow-men in order to be blessed as a reward by God with all the material benefits which are valued in this life and which are striven for also in other, more direct, ways. This is expressed succinctly in the Christian supplication for the daily bread contained in the "Lord's Prayer" (Matthew 6, 11). It is dwelt upon in greater detail in the Jewish "Shema" in which material blessings are made directly contingent upon the observation of God's commandments (Deut. 11, 13-25), and in the "Eighteen Benedictions," the main portion of every Jewish service, in which God is asked, among other blessings, for forgiveness, redemption, health, good crops, the rebuilding of Jerusalem, the coming of the Messiah, etc. This prayer is repeated by observant Jews three times every weekday and four times on Saturdays and holidays.

The Koran, too, is explicit with regard to Allah's reward of those who pray to him:

> O ye who have believed when proclamation is made for the prayer on the day of the assembly [Friday] endeavor to come to the remembrance of Allah, and leave off bargaining; that is better for you, if ye have knowledge. Then when the prayer is finished scatter abroad in the land and seek the bounty of Allah, but call Allah frequently to mind; mayhap ye will prosper (Koran 62, 9-10).

In the popular religion in the Middle East manifested in saint worship and the institution of the *Ziyara* (visitation of shrines), the quest for material blessings is even more predominant.

These three theistic religions, therefore, are oriented towards two goals: to secure immediate material blessings in this world, and to hold out the promise of the Beyond, the happy life after death.

With regard to teleological orientation, religion in the Far East is otherwordly, while in the Middle East and in the West it is equally concerned with this world and with the Beyond. One of the factors which militate against religion

retaining its influence in the modern West is the definite this-wordly orientation of modern Western culture in which religion with its promise of a life in the Beyond seems out of tune. But as far as religion is still alive or again comes alive in the Western world, it displays the same orientation towards the same two foci of well-being in this world and rewards in the other world, which is the common heritage of all religions which originated in the ancient Middle East.

In summary, the function of religion within the total cultural context of each of the three world areas considered, can be characterized as follows:

1. In the Far East and in the Middle East religion is the dominant normative force regulating behavior; in the West it has largely lost its normative function.

2. Psychologically, in the Far East and in the Middle East religion is a powerful sustaining influence; in the West it has largely lost also this function.

3a. On the popular level of the supernatural aspect, in the Far East and in the Middle East religion is polytheo-demonistic; in the West this character of religion is on the wane with the decline of folk-cultures.

3b. On the higher doctrinary level of the supernatural aspect, in the Far East religion is non-theistic and non-creedal; in the Middle East and in the West it is both theistic and creedal.

4. Religion in the Far East is characterized by the absence of religio-centrism: there is a marked toleration of other religions and a mutual borrowing and influencing; in the Middle East and in the West there is a high degree of religio-centrism, with intolerance and scorn of other religions: each religion is exclusive and regards itself as the "one and only" true faith.

5. As to teleological orientation, in the Far East religion has a distinctly other-wordly orientation often accompanied by a definitely negative attitude towards this world; in the Middle East and in the West religion is characterized by a dual orientation towards both this world and the other world.

The place of Middle Eastern religion in this scheme is intermediary. Religion is the dominant normative force in Middle Eastern culture as it is in the Far East. It has a powerful psychological influence as it has in the Far East. On the popular level its supernatural component is polytheo-demonistic as in the Far East. On the other hand, on the higher doctrinary level, it is theistic and creedal as is religion in the West. It displays a high degree of religio-centrism as does religion in the West. And it shares with the West a dual, this-wordly and other-wordly, teleological orientation.

Bibliography

Anesaki, M.

1918 "Prayer (Buddhist)" (in *Encyclopaedia of Religion and Ethics,* James Hastings, ed., vol. 10, pp. 166-170, Edinburgh).

Archer, John Clark

1947 "Hinduism" (in *The Great Religions of the Modern World,* E. J. Jurji, ed., pp. 44-89, Princeton).

Atreya, B. L.

1953 "Indian Culture: its Spiritual, Moral and Social Aspects" (in *Interrelations of Cultures,* UNESCO publication, pp. 123-157, Paris).

Davison, W. T.

1913 "God (Biblical and Christian)" (in *Encyclopaedia of Religion and Ethics,* vol. 6, pp. 252-269).

Geden, E. S.

1913 "God (Hindu)" (in *Encyclopaedia of Religion and Ethics,* vol. 6, pp. 282-290).

Haring, Douglas G.

1949 "Japan and the Japanese, 1868-1945" (in *Most of the World,* Ralph Linton, ed., pp. 814-875, New York).

Hodous, Lewis

1947 "Confucianism": "Taoism" (in *Great Religions of the Modern World,* pp. 1-23, 24-43).

Hsu, Francis L.

1949 "China" (in *Most of the World,* pp. 731-813).

Kang, Younghill

1931 *The Grass Roof* (New York).

1937 *East Goes West* (New York).

Kennedy, Raymond

1949 "Southeast Asia and Indonesia" (in *Most of the World,* pp. 654-730).

Lane, Edward William

1871 *An Account of the Manners and Customs of the Modern Egyptians* (5th ed., 2 vols., London).

Northrop, F. S. C.

1944 "The Complementary Emphases of Eastern Intuitive and Western Scientific Philosophy" (in *Philosophy—East and West,* Charles A. Moore, ed., Princeton).

1946 *The Meeting of East and West: an Inquiry Concerning World Understanding* (New York).

1952 *The Taming of the Nations: a Study of the Cultural Bases of International Policy* (New York).

Patai, Raphael

1952 *The Middle East as a Culture Area* (The Middle East Journal, vol. 6, pp. 1-21, Washington).

REISCHAUER, A. K.
1947 "Buddhism" (in *The Great Religions of the Modern World*, pp. 90-140).

SELL, EDWARD
1913 "God (Muslim)" (in *Encyclopaedia of Religion and Ethics*, vol. 6, pp. 299-302).

SHRIDHARANI, KRISHNALAL
1943 *My India, My America* (New York).

SINGER, KURT
1949 *The Idea of Conflict* (Melbourne).

THORNER, DANIEL AND ALICE
1949 "India and Pakistan" (in *Most of the World*, pp. 548-653).

TOYNBEE, ARNOLD J.
1947 *A Study of History* (abr. ed., Oxford).

WACH, JOACHIM
1944 *Sociology of Religion* (Chicago).

WEBER, MAX
1923 *Gesammelte Aufsaetze zur Religionssoziologie* (2nd ed., 3 vols., Tuebingen).

WEST, REBECCA
1943 *Black Lamb and Grey Falcon* (New York).

THE DROPSIE COLLEGE
PHILADELPHIA, PENNSYLVANIA

COLUMBIA UNIVERSITY
NEW YORK, NEW YORK

COMMENT ON FIELD TECHNIQUES IN ETHNOGRAPHY ILLUSTRATED BY A SURVEY IN THE RYŪKYŪ ISLANDS

DOUGLAS G. HARING

A SIX MONTHS' ETHNOGRAPHIC SURVEY of the island of Amami Ōshima in the northern Ryūkyū Islands, undertaken in 1951-52 for the Pacific Science Board of the National Research Council under contract with the United States Army, provides occasion for these remarks about field techniques.* A systematic discussion of ethnographic procedures is beyond my purpose, and commonly accepted procedures that are not mentioned are taken for granted. My object is to emphasize some aspects of field research among a literate people.

There is irony in the fact that I have frequently stressed the unreliability of data obtained in brief field trips; now I offer only a scant six months on Amami, minus time lost by typhoons, Amamian deluges, and accidents of adjusting to unfamiliar physical conditions. My bias in favor of protracted field research dates from 1917, when I began a seven years' residence in Japan. In that first year I blithely acquired a stock of half-truths that the succeeding six years, plus this latest trip, have barely exorcised. The Amami folk naively subscribed to this dim view of short term research; delightfully frank, they tempered their farewells with a benevolent *caveat:* "Remember, you have been here only six months; you have just begun to know Amami!" I still insist that no one really knows an alien people short of many years spent in their midst.

Amami Ōshima, focus of Amami Archipelago, ranks next in size to Okinawa among the Ryūkyū Islands. This triangular island is 36 miles long and 18 miles across the base. Rugged mountains and deep fjords offer thrilling scenery and meager subsistence for the 110,000 people who eke out a precarious livelihood from tiny valleys and crudely terraced mountainsides. Naze, the capital, contains about 34,000 people and one other large town has perhaps 10,000. The remainder dwell in tiny hamlets in isolated valleys and sheltered bays, often accessible only from the sea.

Amamians participate in one of the great civilizations, since they have long been a part of Japan. They also have much in common with the smaller periph-

* The research discussed in this article was financed in part by a grant from the Wenner-Gren Foundation for Anthropological Research, Inc. The organization and writing of results were supported by a grant from the Rockefeller Foundation. Neither organization is responsible for the content or opinions of this article.

eral societies. This dual orientation I shall sketch briefly. Thanks to Japanese public schools, Amami people know standard Japanese and are literate. They are proud of more than eight hundred years of recorded history, and of the longer era of legend that awaits verification by competent archaeologists. For three and a half centuries they have been integrated in the Japanese political system, although their status was that of serfs until about 1875. Locally published newspapers and periodicals are supplemented by more expensive reading matter imported from Japan proper. Some households have radio, and in the larger places news and advertising are dispensed over public address systems. Urban Amamians are at home in movies and dance halls, bingo games, cockfights, athletic meets, and well-stocked shops. The endless rains and steep mountains afford hydroelectricity for the city and most of the hamlets. Ocean-going ships call regularly at Naze, while motor sampans provide cheap inter-island transportation. Roman Catholic, Buddhist, and Shintō missionaries carry their doctrines to most of the hamlets. The intelligentsia include highly educated individuals who wield considerable influence. Often a peasant will interrupt his toil to tell with glowing eyes of his son in some university in Japan. Agricultural extension services have introduced scientific agriculture and stock-breeding. When some farmers regaled me with tales of antiquity, their notions of social evolution sounded strangely familiar; I wondered if such theories underwent parallel independent development until I traced the doctrines to local intellectuals armed with L. H. Morgan's "Ancient Society." All these things are *modan*—the Japanese version of "modern."

Amami's simpler past, however, still lingers. Sixteen local dialects, unintelligible to the average Japanese, survive in as many mountain-girt hamlets or isolated islands. Despite ready means of travel, extreme poverty isolates the peasants, whose world is circumscribed by the practical question, "Do we eat rice today, or do we merely wash down cycad mush with the water used to wash yesterday's rice?" Shamanism, magic, and witchcraft are ubiquitous. City people laugh at superstition, but fear to venture into a strange village, lest the very water be charged with a deadly spell by the hissed imprecations of a witch. An ancient cult of living female deities—the *Noro*—survives in the countryside. Beliefs in goblins, in tree-spirits, in fearsome half-human, half-animal offspring of the unholy revels of practitioners of black magic, in sinister powers acquired by ghastly manipulations of blood drawn from the snipped-off tongue of a starving dog, in the efficacy of moxa cautery and acupuncture, in the unwavering benign guardianship maintained over a man by the spirit of his elder sister, in the busy mischief of ghosts and sprites—such beliefs are no monopoly of villagers. Each tiny hamlet—

often out of touch with the hamlet across the mountain—preserves its dialect, its special folklore, songs, dances, festivals, technology, poetry, and economic organization; no single village is typical. In eight hundred years Buddhist missionaries have made but limited headway: perhaps because Buddhist priests usually are male and Amami tradition accords primacy to women in religious matters, perhaps because Amamian love of pork—a trait related to South Sea influences—conflicts with Buddhist taboos on meat. Family patterns and the status of women avowedly conform to Confucian and feudal-Japanese models. The rationalizations indeed are Confucian, but the real freedom of women, the investment of romantic love with glamour, and the lavishing of affection upon both consanguine and affinal kindred suggest that the human warmth of early Japan and the South Seas has outlasted what Sir George Sansom once called "the Confucian malady."[1] Under a hand-to-mouth economy very little money passes through the hands of farmers and fisherfolk. Even urban industries, such as the weaving of *tsumugi*—an exquisite *ikat*-dyed silk textile—continue as handicrafts refined by scientific research. In the city and larger villages population has outrun physical accommodations; for example, water for washing and bathing is scarce despite abundant rainfall. Amamian personality manifests distinctive features that survive even after migration to Japan Proper; the expatriates foregather in Japanese cities and nostalgically review the good old days back home. Thousands of young Amamian laborers work at Army projects on Okinawa; what is happening to them is anyone's guess.

Against this background of modern and not-so-modern Amami the ethnographer seeks to describe and to understand. The following discussion of field procedure is frankly in personal terms, since a depersonalized ethnographic report closes an important avenue to appraisal of the findings. The ethnographer is a human being precariously adjusted to human beings culturally different from himself. Only as the pattern of that personal adjustment is revealed can the trustworthiness of his account be estimated.

Conditions were unusually favorable for research. Both the Pacific Science Board and the United States Army left me almost ideally free in the research and in writing of findings. I could not cover the entire island, much less the rest of the archipelago. Although I visited many villages and talked with many farmers, my contacts with the city outnumbered those with the rural districts—in part because I lived at an Army base, in part because my native helpers at first were reluctant to venture into villages where they had no kin, and in part from

1 George B. Sansom, *Japan, a Short Cultural History* (New York: Century Co., 1931), p. 110.

lack of time to establish adequate rapport with the country folk. Except for a few Communists, no one showed hostility toward the study; everywhere I met with kindness and eager hospitality. Two suspicions had to be allayed: first, that I was a new kind of American counter-intelligence agent; second, that I might be working for the supposedly defunct secret police of Japan. When after six weeks children shouted a new dialect epithet, my translator was delighted; he said, "They just called you 'missionary.' That means that people have decided that you are not an Army agent, even though you do live at the Base." By the time that the missionary role had become clearly inappropriate, children and adults had learned my name and created a special category for me.

The usual caution that restrains an ethnographer from involvement in native politics was reinforced by the strict rule of the United States Army forbidding Americans to enter in even the slightest way into Ryūkyū politics. Some political facts, however, were patent and inescapable. Amamians were upset profoundly over their political divorce from Japan Proper. The strange regime of military government that lumped Amami with Okinawa and interposed an incomprehensible boundary between Amami and Japan had disarranged the patterns of social expectation. Across that boundary, in Japan, were friends and relatives, fiancees and relatives by marriage, children in college, business connections, pensions, old-age insurance, veterans' benefits, and sentiments of past legend and future hope. Geographically a close neighbor, Okinawa long had been viewed with rural resentment toward the city slicker, and except for its northern tip was a place where no relatives lived and whence no conceivable aid could come.

Once Amamians accepted me as a free agent bent on faithful description of their customs and ideas, they manifested an ambivalent combination of fear lest they unwittingly violate my neutrality and drag me into politics, and deep urgency lest I fail to perceive their desperate longing to rejoin Japan. I began to wonder how the people of the State of Maine might respond if suddenly they were cut off from the United States and incorporated into French Canada. At least the Amamians were grateful for American aid and friendship; they worried lest their agitation for reversion to Japan be construed as hostility toward the United States. This tense situation could have biased the rsearch; it was apparent, however, that any honest survey would list as an outstanding fact the universal desire to rejoin Japan. This insistent political hope motivated much of the ready cooperation with the ethnographer; certainly it did not obstruct any phase of the study.

Desire to win my backing for reversion to Japan, however, was not the sole factor in acceptance of the ethnographer. I am convinced that even now, with

reversion an accomplished fact, an anthropologist would be equally welcome. For the people literally adopted the study; they wanted to be studied; they were pathetically eager to have their customs recorded, to be noticed in the far-off world that reached them only through books and radio. Elsewhere in the Amami Archipelago similar feelings were manifest. Unable to visit the island of Okierabu, I did get a half-hour chat with longshoremen who were unloading cargo there from a ship on which I was a passenger. They inquired why I was living on Amami, and hearing the reason, shouted in chorus, "Don't waste time studying those people on that bleak barren island! Come down here and study us: we have no poisonous snakes; we have sunshine; we are friendly; and we'd give a foreign scientist a big welcome!" These people feel forgotten; self-pity is a congenial emotion, and it is epitomized in references to "The Forgotten Islands." The visiting ethnographer symbolized their longings for a breach in the isolation. Apart from objective findings, I should have been less than human had I failed to respond and accept this emotional load, knowing full well that no one man could cope with the hopes and dreams of a whole people.

The inherent assets of the situation transcended this emotional complication. The hearty welcome that met my arrival puzzled me until I learned that Japan's senior scientist, the ethnographer Dr Kunio Yanagita, who is especially revered on Amami for his studies of Amamian culture, had generously written letters on my behalf. The two daily newspapers took pains to report my project carefully; they made it clear that this was the sort of research that anthropologists conduct in their own countries; that it involved no assumption of the inferiority of the people studied; and they continued to provide an open channel to the people. Another asset was the prestige of science among Amamians. They are proud of Amamian scientists who have attained eminence in Japan; Government schools, agricultural and marine experiment stations, and other local research have convinced even the peasants that the future belongs to science. When the press announced that a real live scientist had arrived in their midst, the people were eager to help, even to submit to psychological dissection. Their easy friendliness and sense of humor made the investigation doubly pleasant.

How the islanders enjoyed it when, hard-pressed to imbibe murderous potions of *shōchū*, and having failed to convince them of the imperative need for abstinence on the part of a diabetic, I protested, "But I came to observe your customs; how can I tell how you act when you are drunk if I also get drunk?" This was repeated all over the island, and scarcely a week would pass without some bibulous pedestrian embracing me and saying, "You wanted to study drunks, now come with me and watch me, 'cause I'm drunk!"

Amamians do what they can to encourage science. A pathetically ill-housed museum, stocked with books, a collection of shells, and archaeological specimens, was crowded with eager students. The Assistant Curator was a brilliant young self-taught anthropologist. The Trustees of the Museum generously placed him at my disposal for the duration—with the one reservation that, since he was their best accountant, they would need him at the end of each month. Not every ethnographer finds a native anthropologist awaiting him in a supposedly backward area! In addition, several capable local antiquarians stood ready to discuss lore and custom, to obtain singers for the tape recorder, or to introduce me to some village mayor. Even now they answer my letters of inquiry.

Knowing the workings of gossip and curiosity respecting a foreign visitor, I deliberately planted correct information about myself in the fountainhead of gossip channels—a *geisha* house. By dropping in for lunch, when the girls were not occupied professionally, I gave answers complete with snapshots to their questions about my personal history, family and grandchildren, job, income, prospects, and all normal topics for gossip. This worked so well that later on all this information—plus normal accretions—returned to me from the familiar spirit of a local shaman in trance as he disclosed my past sins and future fortunes. Obviously the spirit was not above un-spectral consorting with *geisha* girls.

I employed no informants in the conventional sense. They were scarcely needed, for information piled up faster than I could digest it. I did hire two young translators: one to render into English the newspapers and other local periodicals, the other to act as interpreter. His translations of interviews insured my hearing everything twice and gained time for note-taking. When unusually heavy downpours curtailed our activities we held informal sessions on the aims and results of anthropology. Invariably these sessions were followed by bursts of initiative that often disclosed new data.

Several associations coöperated voluntarily. The Federation of Women's Clubs sponsored questionnaires on marriage, kinship, and family life, criticized and amended my schedules, mailed them to their many local clubs, and coaxed back the late returns. In 1951, Naze witnessed the opening of its first photographic supply store, followed by organization of a camera club. Together with the Colonel in command of the United States Civil Administration unit, I offered prizes for a photographic contest that stressed handicrafts, customs, and scenery. The Physicians' Association volunteered active coöperation, and I regret deeply that limited time prevented taking advantage of that offer. Government offices, especially the Statistical Office, provided whatever information I requested; despite lapses during war years and defects in reporting, their records were invalu-

able. Since the United States Army had analyzed the political and economic data, I used only the population records. At the Boys' High School many of the boys kept diaries for two months for my use, in exchange for my giving a weekly class in English pronunciation. At the Girls' High some twenty girls persuaded aged persons to dictate their autobiographies; these documents fall short of Professor Dollard's standards, but they shed light on history, customs, and—dimly—on psychology. Teachers, both urban and rural, were willing, perceptive, informed aids in research.

Studies already made locally provided much help. Hard-pressed by rising expenses, the teachers had just published a detailed study of family budgets and costs of living. The dean of local historians, Mr E. Kazari, had devoted a lifetime to the study of Amamian folk music and folklore, and I gleaned richly from his store of knowledge. The Amamian anthropologist, Mr F. Yamashita, entrusted me with his definitive study of tattoo-designs collected from the backs of hands of aged persons now deceased; this I hope to publish for him.

In order to analyze printed media of communication, all locally published newspapers, periodicals, and other materials were assembled on a set day of each month, filed, and translated. The leading bookstores regularly provided lists, with quantities, of books and periodicals imported from Japan Proper.

Daily research procedures and my own participant activities were recorded in a log that ultimately covered 346 closely-typed pages. Two significant items of personal participation can be mentioned here: one was attendance at a concert of folk music, from which by sheer accident I did not depart at the intermission as American guests had usually done; thereby I unwittingly passed a test important in native eyes. The other was delivery of a short speech at an educational conference staged by visiting faculty from Michigan State University, attended by most of the teachers on the island. Proceedings were conducted through translators. Out of courtesy I had been asked to speak briefly. The evening before the conference, three of the Army's Japanese interpreters descended in force on my quarters and announced that they would work all night if need be to help me prepare and deliver a speech in Japanese, and that they would give me no choice—I *must* speak in Japanese. They rendered my ideas into fluent phrases quite beyond my normal capacity. This necessitated reading the speech, and in the very middle, the electricity began to fail. Had the lights gone out completely I should have lost face irretrievably; through sheer luck the current rallied and so did I. This speech in Japanese settled the question of popular acceptance of the ethnographer. Thereafter, wherever I went, someone who had been present would greet me as an old friend, show me off to the villagers, and explain the study. Immediately the

people would answer questions gladly, pose for pictures, and surfeit me with coöperation. Even the secrets of the *Noro* cult eventually began to drift into my ears.[2]

The Wenner-Gren Foundation generously supplemented my equipment with a 16mm movie camera, a tape recorder, and moderate funds for film. Unaccustomed to either a movie camera or tape recorder, I learned the hard way; these mechanical aids, however, are invaluable. Even if film and tape records had proved worthless, the interest generated among the people by their use would have been worth-while. Professional artists volunteered to record folk songs. Friends sought out old persons who were expert in use of obsolescent local dialects. Several villages begged to provide folk dances (which were out of season) for the movies. Young men once lugged a heavy motor-generator set on narrow paths over a mountain pass to insure current for the tape recorder. Although I was chronically starved for film and for sound tape, I managed to record many folk songs, specimens of eight dialects, movies of crafts and dances, *et cetera*. Rain, lack of film, and urgent obligations incurred as host to intestinal parasites cancelled out numerous precious opportunities.

Movies are invaluable to record technology, dances, rituals (if cameras are permitted), and any other activity that conforms to a set pattern. The intricate handicraft dyeing and weaving of Ōshima *tsumugi*—perhaps the most precise and exacting handicraft ever observed—yielded to cinema recording in spite of my ignorance of textiles and weaving. Without the movie camera I should have been helpless to describe this process. Margaret Mead has shown the value of cinema records of the behavior development of infants; I fared badly, however, in photographing babies, for most of my visit fell in winter when Amami infants are bundled in shapeless masses of cloth. Furthermore, I hesitated to expend precious film on babies reared in strict accordance with a Japanese version of Dr Sock's "Pocket Book of Baby and Child Care."

Ethnographic movies are records, not spectacles. If the subjects habitually frequent cinema shows, they invariably emulate Tyrone Power or Rita Hayworth when a lens points their way. This tendency is minimized in photographing a folk dance, a ritual, or a handicraft in process. To the extent that conditions are rearranged to suit the camera and rehearsals are held, bias is introduced—perhaps so subtly that the ethnographer does not detect the change in emphasis. Photographing without prior rehearsal consumes extra film and may yield indifferent entertainment, but it can obtain a reliable ethnographic record; and an

2 D. G. Haring, *The* Noro *Cult of Amami Ōshima: Divine Priestesses of the Ryūkyū Islands* (Sociologus, vol. 3, pp. 108-121, Berlin, 1953).

accurate record with minimum disturbance of customary routine is a defensible goal when the ethnographer has but one movie camera and no technical assistant, and deals with a native situation unamenable to control.

For still photography a telephoto lens is invaluable—as in recording children's play. Unfortunately I did not acquire such a lens until my final month on Amami. Working in Amami's unrelenting rain, high-speed lenses are essential; I feel quite sure that I could defend the title of the world's most experienced rainy-day Kodachrome photographer! Two cameras were always ready for instant use, one for color, the other for black and white. Anything worth recording on either may merit a duplicate shot with the other film; this avoids copying color positives to obtain half-tone reproductions. All cinema shots should be paralleled by still pictures—not only as insurance against accidents, but as a source of illustrations. Unfortunately this procedure requires two photographers. It hardly needs saying that a humid hot climate requires extreme precautions in preserving film and in protection of lenses against mould.

Fundamental in studying a literate people is the question of imparting the results of the research to the people studied. This crucial problem of ethnographic research is unknown in the physical and biological sciences. The subjects of social research are self-naming, self-explaining, and self-categorizing. Still more important, they want to know the results, and unlike laboratory rats, they regard one's findings with emotion. This problem may be dramatized by the incident of an Amamian psychopath who regarded himself as a movie producer. Maladjusted individuals often seek the company of foreigners, and he attached himself to me—partly in hope of borrowing the movie camera and getting free film. Unsuccessful in this scheme, he asked the Assembly for a government appropriation to finance a grandiose scheme of publicizing Amami. There he delivered a speech to the effect that I plotted to slander Amami, that my pictures were limited to pornographic movies of nudes; and he talked the Assembly into appropriating 100,000 *yen*. Hotly the legislators resolved to purge the island of my nefarious activities. Some lucky fate, however—perhaps the familiar spirit of my friend the shaman—worked for me. That very morning the infrequent mails had returned from Hawaii several hundred feet of processed film. Unaware of the goings-on in the Assembly, I sought out the projection facilities at the United States Information Center and looked at the film. At the adjoining Government offices, clerks and secretaries were seeking diversion while their bosses deliberated. The grapevine spread word that I was showing movies, and in a twinkling I had a packed house. Delighted with the pictures, the clerks scurried for their desks just as the legislature adjourned. The moment he

entered his office, each Assemblyman heard a glowing account of my pictures before he had a chance to mention the events of the legislative day. Not one of the gentlemen of the legislature repeated the slander against my pictures; instead, I received invitations to photograph athletic meets, parties, customs, festivals, black rabbits—anything.

This was only one of the occasions when a situation was saved, not by my ingenuity or ethnographic technique, but by sheer luck. I urge ethnographers to keep their good luck charms in working order—as Sumner would have phrased it, to give due attention to "the aleatory interest."

In addition to keeping the public constantly informed concerning my activities, I invited leading citizens to view the pictures and listen to records just before I left. They knew exactly what I carried away from Amami. At the showings, their comments opened new insights, verified information, and corrected blunders. Unfortunately I cannot afford to show appreciation by providing the Amami Museum with duplicate cinema films and many of the still pictures; my resources, however, were taxed by the necessity of giving hundreds of prints to those who had posed for pictures.

As far as they can be written before leaving the field, reports of the research should be read in the native language to native critics. This was done with my preliminary reports to the Pacific Science Board and the United States Army—except for recommendations made to the Army. Reading such a document in Japanese sorely tried my linguistic skill, but Amamian friends were patient. These critics were picked to include some of the best-educated and most thoughtful islanders. They corrected numerous mistakes and verified points where I was unsure. Such procedure gives the people confidence in anthropological research, and should prepare the ground for subsequent investigations. Later, I showed pictures to a group of Amamians in Tōkyō; they were enraptured with glimpses of home and volunteered independent confirmation of many facts. For example, reticence in discussing the *Noro* cult had left me dubious of some findings; a Tōkyō lady who had been born and reared in a hereditary *Noro* household on Amami—and who as the wife of a Japanese scientist understood the real aims of research—eagerly verified details and added more information.

Another valuable experience in Tōkyō I owed to the unfailing thoughtfulness of Dr Yanagita. He assembled a group of Japanese ethnologists to whom I presented a summary of my findings. Their questions and comments forced me to rethink a number of points, verified others, and gave me the benefit of their experience.

Every philosopher knows, as Suzanne Langer has observed brilliantly, that

the choice and formulation of a question define the range of the answers. I think that introduction of technically refined questionnaires or public opinion schedules into a non-Euro-American milieu may involve serious bias that the investigator fails to note because he is steeped in the logic of his own culture. When the Amami Federation of Women's Clubs revised my schedules, I took the hint: Why not let the people themselves make out the questions? Even if such procedure should miss some pet interest of the ethnographer, it would be enlightening to see what kind of questions they would frame. Unfortunately I cannot demonstrate this technique; the box that contained all the relevant schedules, replies, and translations of studies made in this way, as well as translations of the native press and all data of kinship and associations, was lost en route to the United States. I can only indicate what I attempted to do.

The first use of native ingenuity was in a survey of associations in Naze. I employed an intelligent and influential man to locate all possible associations and secure descriptive data. A member of the Assembly, he already knew many groups, and political aspirations whetted his appetite for further contacts. Data of this sort lay beyond my reach as an American, since rumor had it that the Army was about to revive the former Japanese police rules governing registration of associations. So I instructed the investigator to keep all names of individuals in a notebook that would be confidential in his hands without my ever seeing it. His integrity vouched for my good faith, and he obtained a considerable body of data. As his study progressed, many officers of associations said, "It's all right; give him our names—he won't get us into trouble!" The questions and categories that he formulated were appropriate to the Amami situation and to the local concept of an association—a concept foreign to American thinking.

Another study dealt with mate selection and family customs. The investigator was a respected teacher of Home Economics in the Girls' High School. In the homes of hundreds of former students, now wives and mothers, she was a very welcome guest. I offered a list of questions and suggested that she revise it. She came up with an interview schedule different from anything I would have devised; in some respects I questioned its value, in others it was highly satisfactory. After that study she came with an idea of her own: she had been teaching about birth and infant care; she wanted the facts as they had been discovered by midwives. Would I help her plan an interview schedule for the midwives? Promptly I offered to pay the costs of her study if she would share the results. The data thus obtained on the experience and opinions of Naze midwives are no model of interview technique, but some questions and answers are significant. She handed me the results just as I left Amami and there was no time to discuss them with

her; they were translated in Tōkyō. Happily, they were not included in the box that went astray.

My general conclusions may be stated briefly. Unusual opportunities combine with special problems in study of a literate people whose numbers are small enough to render conspicuous an ethnographer in their midst. Ethical questions implicit in all ethnographic research come to focus when the people studied are sure to read whatever appears in print about themselves. On occasion, such a people may tend to center hopes and dreams in the ethnographer as a link with the outside world, and thus to complicate his scientific and ethical problems. This is a facet of the durable question of whether the rich cultural repertory of a literate people can be surveyed in the way that has yielded so many valuable studies of peripheral tribes. Certainly the picture of the ethnographer at work that was set forth so brilliantly by Malinowski[3] scarcely pertains at all to a relatively populous, completely literate society—and increasingly, ethnographers will be dealing with this type of situation as literacy is more widely diffused.

A people who read and discuss what they read should be taken into the ethnographer's confidence. Of course he must respect confidential information, but otherwise he has everything to gain and nothing to lose by the sort of publicity that invites verification. If individuals suspect that the ethnographer is misinformed or purblind on any topic, someone undertakes to set him right. Carrying this principle a step further, the ethnographer should enlist native minds in various aspects of planning the investigation in hope of escape from his own cultural limitations. Native critics can contribute richly to verification of findings. On the other hand, the ethnographer can bring insights to the culture that offer to the natives new understanding of their own ways of living, and their support of the research is enhanced whenever some aspect of their culture of which they are but dimly aware is clarified to their surprised satisfaction.[4]

Beyond correction of factual blunders, what criticisms have Amamians voiced? First, that too little time was allotted for the study; I did not even experience the full round of the calendar of annual events. This implies that the pace of Amamian life is leisurely and that American haste annoys Orientals. "Take more time; you'll understand better!" "At least come back and study us some more!" Secondly, the ethnographer was criticized for not living in native style. This shortcoming was related to my dietary needs as a diabetic; it was mitigated

3 Bronislaw Malinowski, *Argonauts of the Western Pacific* (London: George Routledge and Sons, Ltd., 1922), pp. 2-25.

4 In this connection, some of Reik's ideas are interesting (Theodor Reik, *Surprise and the Psycho-analyst*, London: Kegan Paul, Trench, Trubner and Co., Ltd., 1936).

in the eyes of Amamian friends by the circumstance that in Japan Proper I had lived in native style.

The major criticisms from other quarters run parallel, although they are oriented quite differently. Some United States Army personnel and some Japanese assert that the report was pro-Amamian in bias. I have not heard this criticism from Army men who have been stationed on Amami. Japanese objections on this ground seem to refer to quite different aspects of the report: in Japanese eyes, Amami is backwoods, not worth the time of a foreign scientist; and to some Japanese my picture of Amami seemed more favorable than the portrait of Japan in some of my other writings. I hope that time, and more complete publication of findings, will impart a mellower perspective.

Certainly no amount of sympathy with native culture would justify the slightest distortion of fact. In the work of any honest scientist this may be taken for granted, but one cannot guard too carefully against unrecognized bias. One can only endeavor to hold to a mature and inclusive objectivity that recognizes the emotional responses involved. If I have stressed the emotional aspects of living in Amami during the reversion agitation, it is because the situation forced upon me a deeper understanding of what I once wrote about the late Professor Thurnwald: ". . . if they [ethnographers] study exotic peoples, they remain under an ethical obligation to consider ways in which their findings may aid those peoples to survive and attain the goals they seek. Professor Richard Thurnwald . . . never subscribed to the doctrine that the fate of those whom he studied did not concern him. . . . The ethnographer cannot forget that he is dealing with people whose very existence may be threatened by the civilization that he represents."[5]

5 D. G. Haring, "The Social Sciences and Biology" (in *Beiträge zur Gesellungs- und Völkerwissenschaft, Professor Dr. Richard Thurnwald zu seinem achtzigsten Geburtstag gewidmet*, Berlin: Verlag Gebr. Mann, 1950), p. 135.

Syracuse University
Syracuse, New York

JOINTED FIGURINES IN MESOAMERICA AND THEIR CULTURAL IMPLICATION

STEPHAN F. DE BORHEGYI

AMONG the many and varied types of clay figurines in the widespread figurine cult of pre-Columbian Mesoamerica, there is a small but nevertheless important type known as *jointed figurines*. This interesting group merits special attention because of the technical skill involved in the original concept and the later manufacture of the figurines. Information to date indicates two widely separated centers of manufacture, the one to the north being centered in the states of Veracruz, Hidalgo, Mexico, Tlaxcala, and Puebla in Mexico and the area to the south comprising the central Guatemalan Highlands and western El Salvador. Between the figurines in these two areas, however, there is a considerable chronological discrepancy and an even greater difference in mechanical concept.

The jointed-arm and -leg figurines from Mexico, which I designate here as Type B, wear elaborate headdresses, large earplugs, and show no indication of sex. Both arms and legs have been perforated horizontally and must have been attached to the solid, triangularly-shaped body by means of cords that were passed through the transverse holes from shoulder to shoulder and from hip to hip (fig. 2a). They are predominantly of Teotihuacan III-IV and Upper Tres Zapotes date or, in chronological terms, were in use roughly from 300 to 900 AD. The distribution of the jointed- arm and -leg, Type B, figurines is shown on the adjoining map (fig. 1). They have been reported from Teotihuacan,[1] San Miguel Amantla and Santiago Ahuitzotla,[2] Jalapasco,[3] Huamantla,[4] Tres Zapotes,[5] San Andres Tuxtla,[6] the Cempoala region,[7] and from the Pavon site near Tampico.[8]

1 Gamio, 1922, vol. 1, Pl. 87*a*, *b*; Spinden, 1949, p. 178, fig. 57; and Linné, 1942, fig. 286.
2 Seler, 1915, p. 473, Pl. 32, fig. 2.
3 *Idem*, Pl. 32, fig. 1.
4 *Idem*, Pl. 19.
5 Drucker, 1943, pp. 121, 132, Pls. 41*w*, 471; Weiant, 1943, pp. 116, 123, 128, Pl. 61 (first row).
6 Seler-Sachs, 1922, p. 24, Pl. 10; Valenzuela, 1938, pp. 57, 58, figs. 14, 15; Valenzuela, 1945, p. 88, fig. 5.
7 Garcia Payón, 1950, p. 102, Pl. 16, fig. 61.
8 Ekholm, 1944, p. 457, fig. 42*k*.

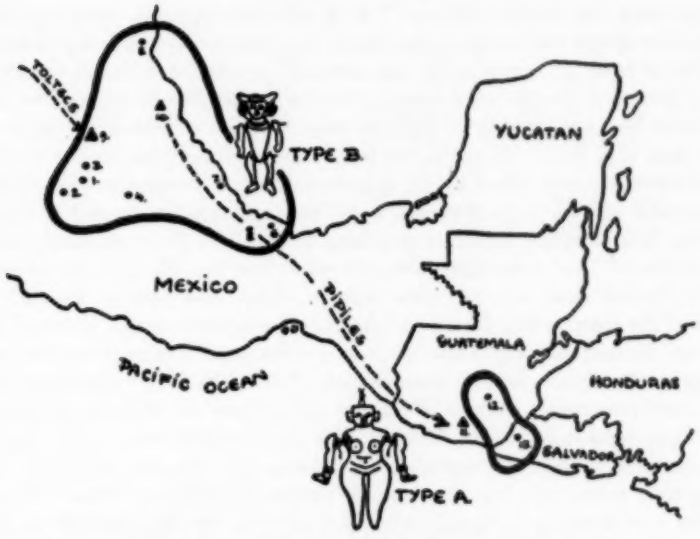

FIG. 1. Map showing the distribution of jointed figurines in Mesoamerica: Type A, 1500-1000 BC; Type B, 300-900 AD).

Mexico
1. Teotihuacan
2. San Miguel Amantla
3. Santiago Ahuitzotla
4. Huamantla
5. Tres Zapotes
6. San Andres Tuxtla
7. Cempoala
8. Pavon site
9. Tula (Toltec capital occupied by Tolteca-Chichimeca groups approximately between 800-1000 AD.
10. Tajin

Guatemala
11. Santa Lucia Cotzumalhuapa (occupied by Nahuat-speaking Pipil migratory groups between 900-1000 AD).
12. Kaminaljuyu

El Salvador
13. Tazumal

The jointed-arm figurines from Kaminaljuyu, Guatemala and Tazumal, El Salvador are of quite a different type and of much earlier date. They are designated here as Type A (for distribution see fig. 1, map). All seem to represent women, some of them markedly pregnant, and on two the female genitals are indicated.[9] They are made of a white slipped and carefully polished white paste ware. The torsos are much more realistically executed than their Mexican counterparts and the legs, rather than being jointed, are a part of the solid body. The hips are usually very full and the women are represented either seated cross-legged

9 Borhegyi, 1950, figs. 1*a*, *c*, *f*, *h*,

or standing, legs slightly separated.[10] Each arm has a rounded, perforated boss which fits snugly into a smooth-edged cup in the shoulder. The body is perforated obliquely from the center of the two shoulder cups to the center of the back. It is presumed that the arms were attached by means of cords which were tied to either boss and, passing through the body, were tied or held at the center of the back (fig. 2b). If the cords were held in such a way, it was possible to raise and lower the arms either jointly or independently, a mechanical trick that is impossible with the Type B variety, which were probably manipulated as marionettes. It is therefore somewhat surprising to note that the mechanically more sophisticated Type A specimens are much older than their Mexican counterparts. The polished white ware and white paste of which these figurines are made is one of the characteristic features of the Providencia-Sacatepequez phases of the central Guatemalan Highlands. Shook in a recent paper[11] places these two contemporaneous phases between approximately 1500 to 1000 BC.[12] Therefore, even the most conservative estimate of the time gap between the two styles of jointed figurines seems to be about 1000 years. This great time difference would seem to argue for a completely independent invention of the Mexican jointed-arm and -leg type, particularly because, although handmade figurines of many different styles were abundant in the later Miraflores (1000 to 500 BC) and Arenal (500 to 0 BC) phases at Kaminaljuyu, the jointed-arm type ceased to exist after the close of the Providencia phase, at 1000 BC. The reasons why this type was discontinued are not apparent.

The dates for the jointed-arm figurines from El Salvador have not yet been established. According to Boggs[13] they are not uncommon at Tazumal although statistically they occur in small percentages. They are most probably roughly contemporaneous with the Kaminaljuyu specimens because of the fact that they are made from a similar white paste ware.

When I first described the Type A jointed-arm figurines in an earlier paper[14]

---

10 Similar leg and large-hipped shapes are common on the figurines (Type D-1) from Tlatilco, Mexico. They have been designated "mujer bonita" and probably represent the ideal beauty type of the period. They date from about the same period as the Kaminaljuyu archaic white ware, white paste figurines. The radioactive carbon 14 date for Tlatilco is 1400 BC. Shook estimates the Providencia-Sacatepequez phases as approximately 1500-1000 BC.

11 Shook, 1952, p. 4.

12 In connection with the great age of these jointed-arm figurines, it is interesting to note that the earliest known jointed-arm and -leg terracotta figurines (dolls) from the Old World (more specifically Corinth, Greece; see Hercik, 1951, pp. 10, 18) date from about 500 BC. The Maya figurines antedate them by about a millenium.

13 Personal communication from Mr Stanley Boggs in 1950.

14 Borhegyi, 1950.

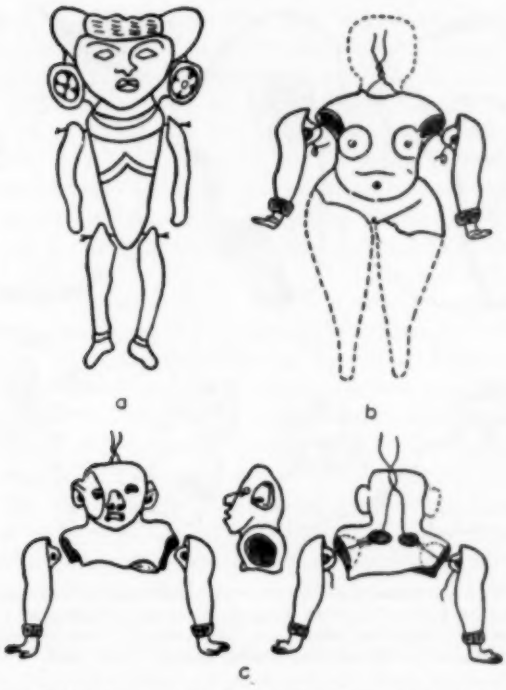

FIG. 2. *a*, Type B jointed-arm and -leg figurine: Teotihuacan, Mexico (after Spinden, 1949, fig. 37); *b*, Type A jointed-arm figurine: Kaminaljuyu, Guatemala (after Borhegyi, 1950, fig. 3); *c*, Type A jointed-arm figurine fragment: Kaminaljuyu, representing a bald-headed woman (Lot C-13).

there were only two torsos and two arms from Kaminaljuyu and one torso from Tazumal known to exist. None of the torsos had heads, however. Since that time one torso with the head attached and a headless torso has turned up at Kaminaljuyu, while three torsos with heads attached were found at Tazumal (see figs. 2*c* and 3*a*).

Figure 2*c* (Lot C-13) was a surface find at Kaminaljuyu. The fragment consists of a slightly damaged head and upper torso. It is made of a highly polished Providencia white ware and white paste. The height of the fragment is 4.3 cm; the width at the shoulders, 4.5 cm; and the diameter of the shoulder cups is 1.2 cm.

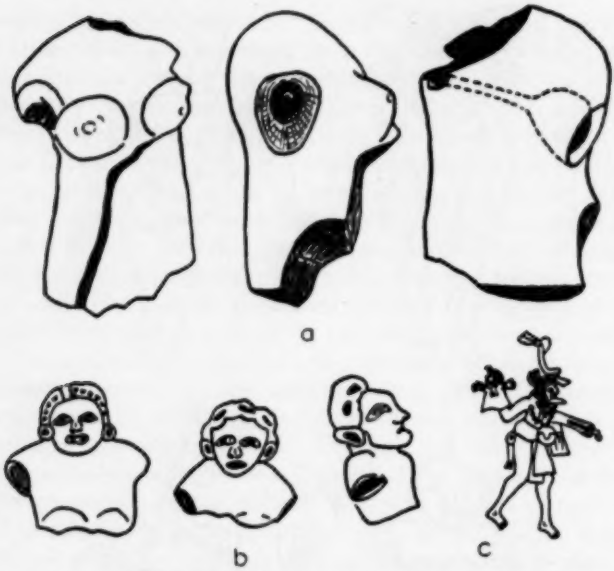

FIG. 3. *a*, Type A jointed-arm figurine torso: Kaminaljuyu, Guatemala (Lot C-30); *b*, Type A jointed-arm figurine fragments: Tazumal, El Salvador (Boggs photo.); *c*, Detail from Monument 21 at Finca Bilbao near Santa Lucia Cotzumalhuapa, Guatemala (after Thompson, 1948, fig. 6*d*): represents bearded individual holding manikin in right hand.

The face has triple-punched eyes, an aquiline nose, upward protruding lower lip, and a squarish, bald head. The right ear is missing but the undamaged left ear has a small hole probably representing an earplug. Otherwise the figure is completely nude. The left breast is visible on the broken torso. It is interesting to note that most female figurines from the Providencia phase at Kaminaljuyu are represented devoid of clothing and with bald or half-bald heads. It is possible that the lack of hair, certainly not esthetically pleasing as judged by modern standards, may have been a requirement of a religious cult or a penance ascribed particularly to the female sex. If this is the case it is not necessary to look for an Olmec influence, as postulated by Kidder and Shook[15] to explain the presence of some of the bald-headed pre-Classic figurines and effigies of the Guatemalan Highlands.

15 Kidder and Shook, 1946.

Figure 3a is made of the same white ware, white paste although the slip is mostly gone. The specimen (Lot C-30) came from an ancient pit near the Roosevelt hospital at the site of Kaminaljuyu. Apparently the figurine was hollow. The height of the fragment is 11 cm; the diameter of the shoulder cup, 2.8 cm; and the thickness of the torso is 1.5 cm. It is also from the Providencia phase.

In Figure 3b, three of the Tazumal jointed-arm figurines are reproduced.[16] A headless torso fragment from this site was illustrated previously.[17] Although the physiognomy of the Tazumal female figurines is strikingly similar to that of the Kaminaljuyu specimen, particularly as regards the aquiline nose, instead of a bald head they are represented with a neat hairdress. This may very well represent a difference in the ceremonial customs or penance rites between the two regions. The measurements of these three specimens are not available but will undoubtedly be published in a forthcoming publication on Tazumal by Boggs.

Little can be said concerning the use of these figurines. The fact that they are all female, and most of them pregnant, would seem to relate them with a widespread fertility cult presumably in existence through Mesoamerica during the pre-Classic period. However, if they were used as amulets to insure fertility and good crops, it is difficult to rationalize the additional skill and labor necessary to create the movable arms. On the other hand, if they were meant to be used as marionettes or as toys, then it is equally hard to rationalize the obvious ritual significance of the pregnant female with completely or partially bald head. If they had been placed in burials with the dead it would be easy to suppose that they might be representations of slaves or concubines in lieu of actual human sacrifice, but no figurines of any type have ever been found as mortuary offerings during the pre-Classic period of the Guatemalan Highlands. This is in sharp contrast to Mexico where figurines are frequently and in great numbers encountered in graves.[18] Two facts remain. They do not occur in anywhere near the abundance of the non-jointed figurines of the same period and the position of the hands is sufficiently unusual to suggest some ritual or magical significance.[19] It may be postulated that these special figurines were the prized possessions of a

16 The original photograph of these three figurines from which Figure 3*b* in this paper was prepared was taken by Mr Stanley Boggs.

17 Borhegyi, 1950, fig. 2*a*, *b*.

18 Two large jointed-arm and -leg figurines were found in Burial 13 at Tlamimilolpa, Teotihuacan (Linné, 1942, fig. 286).

19 For the awkward, out-turned hand position of the jointed-arms see Borhegyi, 1950, fig. 2*c*, *d*, *e*. They suggest prayer, meditation, or adoration. Compare the position of the hands with those of the stelae of Copan.

select group of individuals, perhaps diviners, and they may have been used in fertility rituals or possibly as charms to insure a successful and easy childbirth.

Departing from the purely factual material, it is interesting to note the appearance and use of jointed-manikins in other regions. The well-known Javanese shadow-play figurines have jointed arms, elbows, legs, and knees. Strings are attached to all joints for the manipulation of the figurine. Similar manikins seem to appear occasionally on the stone sculptures of El Baul and Palo Verde on the south coast of Guatemala. They most frequently represent a death-head or skeleton and clearly show joints at the shoulders, elbows, hips and knees.[20] Furthermore, Monument 21, at present at Finca Bilbao (near El Baul), shows a man, probably a priest with a false beard, holding a manikin in his right hand as if it were a puppet (see figure 3c).[21] This manikin is clad in a short, full dress which serves to hide the hand of the manipulator. The stone sculptures from the El Baul region are from a much later period and were probably made by a non-Maya, Mexican-speaking group named the *Pipiles*, who presumably migrated into southern Guatemala between 900 and 1000 AD. In spite of the obvious time gap and certain stylistic and conceptual differences, the Pipil manikins may offer a clue to the use of the jointed figurines.

In a Mexican legend relating to the Toltecs there is an interesting episode which suggests the use of a jointed figurine for magical purposes. The story goes that a group of sorcerers and demons lead by Tezcatlipoca determined to ruin the Toltec nation and their capital, Tula, where reigned the famous priest-king Quetzalcoatl. In order to carry out this plan they make use of a great variety of magical tricks and devices, one of them being a small figure which is made to dance on the hand of one of the demons. The text is cited in full.[22]

Ninth Chapter, which telleth of yet another work of magic which this same sorcerer (Titlacauan-Tezcatlipoca) wrought, by which many more Toltecs perished.

Behold still another act of sorcery which the demon did. He came to seat himself in the middle of the market place. He called himself Tlacauepan or Cuexcoch(tzin). There he caused to dance (a figure) like a child. (They say it was Uitzilopochtli.) In his hand he held him as he made him dance.

And when the Toltecs saw this, thereupon they crowded toward him; they stumbled toward him in order to see it. Very many men were there trampled and died in the press as (the others) crushed them to death.

And when thus many times it came to pass that large numbers died in this way, as they looked while he made (the figure) dance, this same demon said, with shouts,

20 Monuments 14 and 13 at El Baul, and Monuments 1, 2, and 3 at Palo Verde (Thompson, 1948, fig. 3*d*, *e*, and fig. 6*a*, *b*, *c* respectively).

21 Thompson, 1948, fig. 6*d*.

22 Sahagún, Book 3, Chapter 9 (Anderson and Dibble translation, part 4, p. 25, 1952).

"O Toltecs, what sort of sorcery is this? Is it not an omen of evil that one is made to dance? As for this one, let him die; let him be stoned!"

Then they stoned him. He fell under the stones. And when this was done, (his body) thereafter stank; it smelt quite frightful; in truth, it wounded the head. And wheresoever the wind carried the stench, there the common folk died.

The interpretation of magical tricks in obscure legends is undoubtedly a risky undertaking but in this case the use of a movable figure seems to be substantiated by archaeological remains. Tollan, the legendary Toltec capital, which is now identified with the archaeological site of Tula in the department of Hidalgo, Mexico, is well within the area of distribution of the Type B jointed-arm and -leg figurines. However, these figurines were probably no longer in use at the time of the Toltec occupation. It is believed that the Toltecs, migrating southward, reached the Mexican plateau sometime between the years 800-900 AD. All evidence seems to indicate that the Type B figurine, invented by the previous inhabitants of the region, went out of use at about this time. The quarrel between Quetzalcoatl and the sorcerers and demons led by Tezcatlipoca can be interpreted either as a fight between the older and newer religious orders or as a battle for supremacy between the priestly class and the up-and-coming Tolteca-Chichimeca warrior middle class, represented by Tezcatlipoca, who may have employed sorcerers from the older population. The Toltecs must have been unfamiliar with the jointed figurines, and if we assume that the magical dancing figure was in reality a jointed-manikin manipulated with strings, it is easy to imagine the wonder and fright it could have instilled in the hearts of the uninitiated.

Returning to the Pipiles, archaeological evidence suggests that they migrated southeast from a region that is now the state of Veracruz, Mexico to southern Guatemala around the year 900 AD. Very likely they were forced from their homeland by the incoming Tolteca-Chichimeca groups. With them to Guatemala they may have brought the knowledge and use of the jointed-arm and -leg manikin. Thus the appearance of jointed figures on the Cotzumalhuapa sculptures becomes understandable in spite of the fact that no Type B figurines have ever been recovered from the area.

The present-day Guatemalan Maya Indians delight in dressing their wooden saint sculptures in colorful and flowing garments. If this is a carry-over from pre-Columbian times it might be postulated that the usually nude archaic figurines were also clad in special dress. Under these circumstances it may well be that the jointed figurines from Kaminaljuyu and Mexico were utilized by certain initiated members of the diviner class to fulfill arm gestures required by the ceremony or perform magical tricks to frighten their enemies. It is possible to imagine the

awe and fear with which these performances must have been viewed by the uninitiated masses, especially if the diviners employed the art of ventriloquism as most probably was the case with the "sorcerers" at Tula.

Bibliography

Borhegyi, S. F., de
1950 *A Group of Jointed Figurines in the Guatemala National Museum* (Notes on Middle American Archaeology and Ethnology, Carnegie Institution of Washington, no. 100, pp. 93-99, Cambridge).

Drucker, Philip
1943 *Ceramic Sequences at Tres Zapotes, Mexico* (Bulletin, Bureau of American Ethnology, no. 140).

Ekholm, Gordon F.
1944 *Excavations at Tampico and Panuco in the Huasteca, Mexico* (Anthropological Papers, American Museum of Natural History, vol. 38, pp. 321-509).

Gamio, M.
1922 *La Poblacion del Valle de Teotihuacan* (2 vols., Mexico).

Garcia Payón, J.
1950 *Restos de una Cultura Prehistórica, Encontrados en la Region de Zempoala, Veracruz* (Uni-Ver, vol. 2, pp. 90-130, Jalapa).

Hercík, Emanuel
1951 *Folk Toys: les jouets populaires* (Orbis: Prague).

Kidder, A. V., and E. M. Shook
1946 *Rimhead Vessels from Kaminaljuyu, Guatemala* (Notes on Middle American Archaeology and Ethnology, Carnegie Institution of Washington, no. 69, Cambridge).

Linné, S.
1942 *Mexican Highland Cultures* (Ethnographical Museum of Sweden, Publication, new series, no. 7, Stockholm).

Sahagún, Bernardino de
1952 *General History of Things of New Spain: Florentine Codex, Book 3, The Origin of the Gods* (Arthur J. O. Anderson and Charles E. Dibble, trs.: Monographs, School of American Research, no. 14, part 4, Santa Fe).

Seler, E.
1915 *Die Teotihuacan-Kultur des Hochlands von Mexico* (Gesammelte Abhandlungen zur Amerikanischen Sprach und Altertumskunde, vol. 5, pp. 405-585, Berlin).

Seler-Sachs, C.
1922 "Altertümer des Kanton Tuxtla im Staate Vera Cruz" (in *Festschriften Eduard Seler*, pp. 543-556, Stuttgart).

SHOOK, E. M.
1952 *Lugares Arqueologicos de Altiplano Meridional Central de Guatemala* (Revista, Instituto de Antropología y Historia de Guatemala, vol. 4, no. 2, pp. 3-40, Guatemala).

SPINDEN, H. J.
1949 *Ancient Civilizations of Mexico and Central America* (Handbook, American Museum of Natural History, no. 3: 3rd ed.).

THOMPSON, J. E. S.
1948 *An Archaeological Reconnaissance in the Cotzumalhuapa Region, Escuintla, Guatemala* (Contributions to American Anthropology and History, Carnegie Institution of Washington, no. 44, from Publ. 574, Washington).

VALENZUELA, J.
1945 *Las Exploraciones Efectuadas en Los Tuxtlas, Veracruz* (Anales, Museo Nacional de Arqueologia, Historia, y Etnografía, vol. 3, pp. 83-107, Mexico).

WEIANT, C. W.
1943 *An Introduction to the Ceramics of Tres Zapotes, Veracruz* (Bulletin, Bureau of American Ethnology, no. 139).

UNIVERSITY OF OKLAHOMA
NORMAN, OKLAHOMA

THE SAGHALIEN TRADE: A CONTRIBUTION TO AINU STUDIES

JOHN A. HARRISON

FEW PEOPLE have so aroused the curiosity of anthropologists as have the Ainu of northern Japan and Saghalien. This is largely due to the fact that they are a tiny island of alleged Caucasian people within a great Mongoloid sea. More important, their origin and history is so obscure that they constitute a "problem." That is, "Who are the Ainu and from where did they come?" To some extent they are a problem within a problem, for the question of who are the Japanese and from where did they come is still unanswered. Indeed we may go further and say we have a threefold problem, for both the Ainu and the Japanese are but part of the whole complex of peoples living in the great sea and land area of the maritime northeast of Asia, and the study of this area and its inhabitants has barely begun. That great ellipse of mankind running from Kamchatka through the Kuriles to the islands of the Japanese archipelago, thence to Korea, and then turning north through the maritime province of eastern Siberia to the Chuckchee peninsula and back to Kamchatka, is one of the most fertile and untouched fields for ethnological study that we have. In light of this, the Ainu problem must be answered in relation to the questions asked and solutions derived about all the peoples of this entire area; for some sort of satisfactory relationship or non-relationship must be worked out before one can venture to say who any of these people are or from whence any of them probably came. A basic step should be the most accurate historical descriptions we can get of the life and development of these people. However, in what little work Western scholars are doing on the area, little attention is being paid to what I call the "pure description of the round of life" based on recorded observations.[1]

Much work has gone into erecting superstructures of theory based on linguistic, sociological, and even psychological methods without attention to the dull work of reconstructing the life of these people from the observations of men who lived with and knew the Ainu before they were Japanized, Sinicised, or Russianized. Western language literature is not of much value, although it comprises a great deal of publication from sixteenth century missionary reports to contemporary theoretical studies. One thing immediately stands out after a survey

1 The author gratefully acknowledges the aid of the Wenner-Gren Foundation for Anthropological Research in making possible his research into Ainu studies.

of this body of Western research. With the exception of a very few men like John Batchelor, who really knew the Ainu, their life, and their language, all the rest were either conjecturing from what they had read of each other's work or were rewriting the competent books of such nineteenth century authors as Chamberlain, Batchelor, Baelz, et al. While much of the conjecture is interesting, ranging from an identification of the Ainu as one of the ten lost tribes of Israel to the concept of them as an Eskimo-Berber group, little of it has any value for the serious student. A handful of pioneer studies are excellent but do not answer our questions, because, for example, by the time John Batchelor began his missionary work among the Ainu those people were less than twenty thousand drink and disease riddled individuals living in a complete Japanese climate of life. Furthermore, even men of Batchelor's calibre treated the Ainu as an isolated people when actually they were a vital part of the life of the Maritime Northeast. Today, isolated on reservations, the Ainu number around twenty thousand still, but syphilis, trachoma, and tuberculosis are widespread, and within a generation the last of the Ainu will be gone. And as time passes, those of the future interested in this tiny segment of mankind will take for gospel that bastard mixture of Ainu-Japanese-Manchurian legends and tales that the old men tell to visitors, and they will also lean on the observations of those who stood on the shoulders of those who depended on the work of Baelz, Chamberlain, de Rosny, Batchelor, Munro, and others.

We must discover what the Ainu were like before Japanese influence began to take hold. As a matter of fact, when did this influence begin and how did it work? What caused the slow but tremendous change in Ainu life from the ancient past when their ancestors held the archipelago through their centuries of war with the Japanese invaders to the time when they were driven into the remote northland and began to lose their old way of life? The answer is to go to the many fine Japanese sources. Of the number and comparative value of those sources—ranging from the earliest Japanese records through the classic descriptions of the Tokugawa period to the great present-day work of men like Kindaichi, Torii, and Takakura—I hope to be able to write later, when I complete my work on the history of the Ainu. But as an immediate fragmentary contribution to Ainu studies, I offer the following short description of the trade contacts of the Ainu and of the change in their life that came with trade from the sixteenth-century onward. I think it will give some hint how the final dissolution of the Ainu came about and of their relations with others, and will, I hope, arouse enough interest to stimulate further work on the history of the Ainu by more competent scholars.

THE ESTABLISHMENT AND DEVELOPMENT OF THE TRADE

The earliest Japanese chronicles, written in the eighth century, with their mention of trade between the Japanese and the aborigines of the island of Hokkaido, are witness to the antiquity of this trade although it was a small one dealing mostly in furs and feathers. These chronicles also tell us that occasionally some of the Tungusic peoples of the continent came to Hokkaido for trade but more often to raid, and that the Japanese' early interest in the Hokkaido area was less in trade than to maintain some kind of watch on the movements of continental peoples. The trade with the Ainu continued through the centuries mostly as a monopoly of whatever Japanese clan happened to dominate the north of Honshu. When this trade linked up with the island of Saghalien is unknown but it must have been quite early, for the crossing from Hokkaido to Saghalien over Soya Strait is not difficult. Once on Saghalien the continent is easily reached over the narrow Mamiya Strait by boat or in winter by dog sled. The geographical position of Saghalien makes it the central link in a route running from the Japanese archipelago to the valley of the Amur river and across Manchuria into north China. Since numbers of people live along this route, Saghalien was to become a crossroads and depot for an extensive primitive trade with its terminals in China and Japan, and with goods from either one of the terminals passing into Saghalien and going through a series of exchanges there before passing on. The people on Saghalien who conducted the exchange were the Santan, Ainu, Kirin, Gilyak, and Orokko, of whom the first two are the most important. These people were not necessarily confined to that island nor did they originate there. The Ainu of Saghalien were a branch of the Ainu of Hokkaido who came into Saghalien from the south. The Gilyak, who had branches on the western shore of the Amur estuary, are presumed to be the first to have come into an uninhabited Saghalien. They were followed by the Kirin, Orokko, and Santan, all three of whom are components of the Tungusic peoples of Northeast Asia. The Santan were never more than temporary residents of the island, their home really being along that stretch of the Amur which runs from its mouth upriver to the Lake Kiji region. That trade began to pass from terminal to terminal along this route by the fifteenth century is indicated by the discovery of Chinese-made glazed clay roof tiles in northern Hokkaido in 1485. By the sixteenth century the head of the Japanese clan which dominated the southern tip of Hokkaido was wearing Manchurian brocade gowns gotten in the trade and even presenting the better ones to the Shogun. By the seventeenth century that trade which linked the continent and the archipelago, and which so deeply affected Ainu life, was in full swing.

THE SCOPE AND CONDUCT OF THE TRADE

1. The Continental Route. From Manchuria to Saghalien and Back.

This part of the trade was carried on at posts established by the Chinese government at various points in the lower Amur region. To these posts would periodically arrive delegations from the Santan, Gilyak, and Goruji of the continent and the Santan and Ainu of Saghalien. From the point of view of the Manchu Empire this native trade was a tributary relationship confirming Chinese claims to hegemony in the Amur-Saghalien area. From the native point of view, it was just good trade. The central Chinese agency was located first at Pul, then at Lake Kiji itself, and finally at Deren. Scattered around the lower Amur, on its last great bend as it turns north to empty into the Strait, were temporary trading posts known as *kafu*. In the early summer of every year, generally July, one Manchu official accompanied by several clerks would visit these small agency houses and prepare for the market which was conducted outside the palisades of the post. The natives would arrive by boat with their own trade goods. The headman of each boat reported to the Chinese official, and was entertained by him and presented with a small gift of millet. Following this came the tribute ceremony as described by the great explorer, Mamiya Rinso in 1806.

> Three high ranking officials are seated in chairs ready to receive the tribute. The natives, taking off their headgear, kneel on the floor and bow thrice after which . . . the tribute is presented. An official of middle rank accepts the goods and presents them to the higher officials. The natives are then presented with gifts.

The tribute paid and the gifts given varied with the status of the native. The native chiefs in Saghalien had been given official titles by the Chinese Government. These titles of *Harata* and *Kashinta* entitled the holder to special consideration, but also obligated the holder to pay a tribute of at least one black marten skin, the common denominator of value in the region (although Rinso says that a title meant a tribute of two skins while ordinary natives paid one). The gifts returned by the government officials also varied with rank. Harata were given a 42 foot roll of brocade, Kashinta a roll of satin damask, and ordinary natives 96 yards of low grade cotton cloth, one yard of red silk, combs, needles, and a chain. The cloth used in the trade was made directly for the trade under orders from Peking to mills at Hangchow and Suchow and brought into Manchuria via the Liaotung peninsula and thence overland to the Amur.

When the ceremony was completed permission was given to open the trading. The officials had come with second-hand clothes, fancy cloth, cotton goods, rice wine, tobacco, pipes, beads, pans, millet, barnyard grass, soy beans, red beans and

other cereals, chinaware, and household goods. These were offered in exchange for furs and skins. There was no standard method of barter nor did trading have to take place at the post itself. It could be carried on at the native camp or on the road between camp and post. Business went on during the summer; in September the post was closed and the Manchurian agents returned to more permanent posts. This seasonal trade, carried out under the name of tribute, had given the natives an opportunity to acquire choice and rare goods, while affording the Manchu Empire the opportunity to gather valuable skins and furs at small expense. At the same time it enabled the Chinese government to win favor among the native tribes of the Amur mouth regions, while it also enabled native headmen to acquire a certain status and prestige by exchanging gifts with the agents of Chinese power.

At the close of the official trading season the Gilyak, Santan, and others returned to their own villages laden with goods. Some of the goods were for their own use, but the Gilyak, Santan, and Orokko put aside a considerable portion to trade again on the island of Saghalien.

2. *The Inter-Saghalien Trade*

Sino-Manchurian products came into Saghalien by four different routes. The least important was the occasional direct trade conducted between Saghalien Ainu and the Manchu officials at the Amur centers. Of the remaining three the less important were the overland routes followed by the Gilyak and Orokko from the Amur to the Strait, then across to the island. The Gilyak generally moved south along the west coast of Saghalien, while the Orokko would cross the island to the east coast at Naibutsu for trade and, on occasion, move south along the east coast. Most important was the Santan route which descended the Amur to its mouth, crossed the Strait and moved south along the west coast of Saghalien. Since the Santan were in the best location for trade and since they were adept at business, they dominated the native trade in Saghalien—to such an extent that the continent across from Saghalien was known in Japan as Santan, while the term "Santan trade" stood for the entire continental trade in the north.

After the continental trade closed in the fall, some Santan would cross to Saghalien in dog sleds, carrying boats by which they would recross the Strait in the Spring; but most of the Santan would wait until the ice broke to cross to the island in late March or early April. The sailing route used depended on winds and weather but was generally from the Amur mouth to Noteto, thence south along the coast for some forty to eighty days to Shiranushi at the southern tip of Saghalien (although Shiranushi did not become important until the late seventeenth century). The return trip was from Noteto to DeCastries Bay because of

the current. The Santan boats, which were made for them by the Goruchi of the lower Amur, were twenty-one to twenty-four feet in length, about four feet wide, constructed either of salmon skin sewn together or of roped wood planks, and provided with birch bark sails. They came in groups of eight to thirteen boats, each able to carry eight men, and on arrival set up a temporary camp to which the local Ainu would come to barter. The Orokko and Gilyak did business in a similar manner. While it was a seemingly casual trade the business acumen of the Santan, plus the belief that they were acting as agents of the Manchurian government, gave them a great advantage over the easy-going Ainu. The Ainu often traded at a complete disadvantage to themselves, were easily persuaded to borrow, and were constantly in debt. The Santan would offer what they had gotten from the Chinese plus eagle feathers, and in return they wanted marten, otter, fox, and sealskins plus Japanese-made axes, pots, pans, flints, and swords. The sealskins the Santan kept for themselves. The fox, otter, and marten were for the Chinese trade, and the other goods were for trade with other native peoples. The minor Gilyak trade followed the same pattern with the exception of a most important barter in dogs; the Orokko trade, which was very small, offered to the Ainu mainly sealskins and oil.

3. From Saghalien to Japan and Back. The Archipelago Route.

The Sino-Manchurian wares of the Amur trade which passed to the Saghalien Ainu continued on into Japan through a highly organized Japanese-Ainu trade. There were two ceremonial forms of this trade. In the first, the Ainu would come to southern Hokkaido and through interpreters pay a visit to the head of the Matsumae clan which dominated that island. The chief would give the Japanese clan-head part of the goods he had brought to trade and in return would receive *sake* and inexpensive gifts. The chief would then return to his boat and begin to barter with the local residents. This exchange of presents was called *uimamu,* and while its inception had been because of the economic advantages to both parties, and while the Ainu continued it, in innocence, as a pure exchange of gifts between chiefs, the Japanese utilized it as a political instrument by treating the Ainu gifts as tribute. Since the aborigines of the northern areas were great gift-givers and would not think of trade without presents, they were careful to present to the Matsumae chief their most treasured goods, which were almost always continental in origin.

The second form of Ainu-Japanese trade and quite similar to the above was the *omusha. Omusha* was an Ainu ceremony held to celebrate reunions after long partings and it was applied to the ceremonies held annually at Japanese trading posts in Ainu areas. Once a year the Ainu of the area were given a great feast

and presents were distributed among them according to their status. It had started as a celebration of reunion with Japanese traders who came once a year to aboriginal territory but was continued long after Japanese had become year-round residents in Ainu territory, as a method of appeasement and rule by the Japanese agents. And whereas trade had once been held only annually following the festival, now trade was a steady year-round business with an annual *omusha*. Actually the major difference between *omusha* and *uimamu* was whether the ceremonial exchange of gifts took place in Ainu territory or at Japanese headquarters in Matsumae. The main point is that this trade formed the last link in the trading chain, for at these ceremonies the chief goods traded were Manchurian and Chinese. These goods came into the archipelago at Soya after an exchange between the Saghalien Ainu and Hokkaido Ainu. This took place either at Shiranushi in Saghalien or at Soya in Hokkaido. The Japanese merchants at the posts in Soya were particularly insistent that the Ainu present them goods from the Santan, which partly accounts for the reason why certain Sino-Manchurian goods were known in Japan as famous products of Hokkaido. Brocades, cotton cloth, and blue beads were regarded very highly. The blue beads gotten in the trade were included in the annual clan gift to the Shogun to be used as *ojime* (to be fastened to the cord of tobacco sacks to keep the mouth closed) and *netsuke* (to be fastened to the cords of small containers to prevent them from falling when carried inside the *obi*.)

So great was the desire for this type of merchandise that in the mid-eighteenth century a Japanese vessel was sent to Saghalien ostensibly to look for new sea cucumber beds but actually to find out whether the Ainu could be bypassed in the Santan trade. This ship, returning with a cargo of the prized clothes and beads, was the forerunner of a direct Japan-Santan trade, for by the 1760's not only were Japanese merchants boats plying between Hokkaido and Saghalien but a Japanese post had been established at Shiranushi. The *omusha* ceremony was then being carried on with the Saghalien Ainu, who received in compensation, rice, *sake*, and iron utensils. These goods were used by the Saghalien Ainu themselves, making for a considerable change in their lives, and were not traded back to the Santan et al for Sino-Manchurian goods. Instead the Saghalien Ainu used furs and skins to secure the Santan materials, for which they in turn received rice, tobacco, *sake*, and iron pots, pans, and axes.

4. The Japan-Manchurian Trade. Shortening the Chain.

The major reason for bypassing the Ainu in the chain of northern trade was political. As Sino-Manchurian goods came into the markets of Japan proper inquiry

led to the discovery that they were not from Hokkaido and Saghalien originally but from China. Since this was the period of national seclusion and the importation of Chinese goods was permitted only at Nagasaki, there was obviously a breach of the rigid trade controls. In 1785-1786 the Shogunate was worried about the influx of Russian trade goods from the Kurile Islands. (Here it should be noted that our trade chain adds another length passing up the Kuriles into Kamchatka across Siberia and into European Russia and then back along the same route into Japan. This new length will, in time, add one of its own from Kamchatka across the Aleutians to Alaska and back.) An inspection party was sent to the Kuriles. It was this group which discovered the Santan trade route. Now while the quantity of goods was negligible from the standpoint of Japan's total trade, the fact that Hokkaido and Saghalien were removed from clan jurisdiction (1806) and placed under direct Shogunal control the better to meet an inferred Russian threat to these frontier lands, made it important to decide whether a private trade ought to continue or whether the Japanese Government ought to monopolize the aboriginal trade in the north. When it was argued that the natives ought to be allowed to continue as they had done for generations; that an established trade could not be stopped without harm and that many natives derived their livelihood from the trade, the Shogunate decided not to interfere. But within several years of its assumption of power in Saghalien a new and vital factor came to light. This was that the native trade between the continent and the island was not just a trade but a relationship between ruler and ruled, and that unless the Government of Japan broke this relationship, the power of political control over the natives of Saghalien would rest not in Japan but in China.

It was discovered that those Ainu who went to the Amur area to trade were considered as subjects of Manchuria, and that they not only received trading credentials from Manchurian officials but also Chinese names. This placed the Chinese government back of the Santan trade, hence the Santan as creditors had behind them all the power and dignity of Chinese officials in the Amur region. Furthermore, in the beginning of the nineteenth century the supply of skins and furs on Saghalien began to decrease and, since on the one hand the Santan and Manchurians demanded a steady supply of these commodities, and since on the other hand the Japanese demanded of the Ainu a steady supply of Sino-Manchurian goods, the Ainu of Saghalien became hopelessly indebted to the Santan. The Santan now became completely overbearing in their relationship with the Ainu. On the annual voyages to the island they took over Ainu homes, used what they wanted without thought of repayment, and looted as they pleased. This not only thoroughly demoralized the Ainu but, since they now took to the

hills to avoid the Santan, it made for a continuing crisis in southern Saghalien where the Japanese had started fishing stations using Ainu labor. Furthermore the Santan were seizing Ainu and taking them to the continent as hostage for repayment for debt. While part of this was to train interpreters for the Saghalien trade, most of it was plainly a slave trade. The Ainu were innocent enough to offer members of their families as hostages for debt. Since there was little hope of repayment, a steady annual depopulation went on in the early years of the nineteenth century, and when matters became desperate, the Ainu themselves made a practice of kidnapping single men and women, without family and helpless, and selling them to the Santan as pledges. The great explorer Mogami Tokunai reported back to Japan that in a 250 mile stretch of the west coast of Saghalien there were only two or three Ainu villages left, the former inhabitants of abandoned villages having been taken to Manchuria.

> Human traffic was the price paid for paper holders made out of beautiful Ezo brocade or *fuchin* [weights to keep the edge of a picture in place when hanging on a wall] made of blue beads. What could be more devilish?

His estimate of depopulation may have been exaggerated, but the fact remained that the natives of an island over which Japan claimed dominion were being subjected to a foreign country. In addition many Ainu were convinced that the traffic in humans was for the purposes of rendering them into oil or making decorative mummies of them. Therefore the Shogunate felt compelled to free the Ainu of this perpetual indebtedness and to revise and reverse the course of trade. In 1809 the Shogunal agents in Saghalien sent notices to the continent that all past debts would be fully settled within a period of three years, and that if no claims for payment were made within this period, all creditors' rights would be deemed as waived. Creditor and debtor, together with witness, would meet, debate the amount of the debt, and settle on a sum. The Ainu would pay what he could and the Shogunal agent would pay the rest, the Santan acknowledging payment by fixing their mark to a record of the transaction. By 1812 the transactions were completed, a total payment being made to the value of 5,546 marten skins of which the Ainu repaid 499 and the Shogunate the remainder. The Ainu were then required to pledge that they would not in the future borrow, and the Japanese agents were ordered not to require the Ainu to present continental goods in trade. Instead, the Santan trade was placed under official Japanese control.

Agents of the Shogun were sent to Tonnai, a port opposite the Amur mouth. When word was received that Santan had landed, these officials would meet them

and seal their cargoes before accompanying them to Shiranushi. At Shiranushi the Santan were given a quart and a half of unpolished rice, a quart and a half of *sake,* and a bundle of tobacco per boat. Their goods, still sealed, were deposited at the Japanese post; they were then ordered to make a temporary camp, which was heavily guarded. Then the local Ainu were summoned: both Ainu and Santan were warned against illegal transactions or borrowing; the goods were unsealed; and the trade was open. The transactions were supervised by Japanese officials. All Santan goods became the property of the Shogunate, which bought them from the Ainu in return for Japanese goods. In order that the Ainu might have the wherewithal to trade, the Japanese Government encouraged fur hunting in Saghalien and Hokkaido and when the supply was short supplemented it with ironware from Japan. When the trade was completed officials accompanied the Santan back to some west coast port—generally Kushunnai—and saw them off. The Sino-Manchurian goods acquired were invoiced and sealed; then sent to Hokkaido where they entered the market with the exception of certain choice items to be sent to the Shogun. The minor trade carried on with the Ainu by the Orokko was also controlled by ordering that it be carried out only at Kushnukotan. This was mainly a trade of Orokko seal oil and leather and fish oil and skins in return for Ainu shoes and Japanese rice, tobacco, and yeast.

With official control of the Saghalien trade, direct Japanese-Manchurian trade came into being which lasted until it was finally banned in 1868.

TRADE GOODS AND PRICES

The amount, type, quality, and prices of the goods in the trade are interesting in their variety and use. Goods flowing from Manchuria consisted mostly of textiles, ornaments, and tobacco, walrus tusks, eagle feathers, and furs, although after 1854 tin containers from Russia began to appear in the trade. Returning from Japan across Saghalien were iron pots, pans, axes, files, etc., and furs. The ironware either went to Manchuria or was retained by the Santan for trading purposes with the interior natives of the island or on the continent.

The annual trade is best known for the limited period when there was a steady flow of reports on it back to Japan. For that reason almost all of the following information is most pertinent to the century 1750-1850 with particular emphasis on the period 1790-1825. In some years, depending on tides and weather, no boat would cross; in others a great many would make the trip. When the Russians occupied the Lake Kiji area in 1857 and took over this major Santan center, forcing the Chinese to move their post some twenty-five miles upstream from Deren to Moreki, the trade began to sag, for the Russians now

commanded the route from Kiji to DeCastries Bay. In the same decade smallpox devastated the Santan and almost stopped the trade completely. The major items of the trade were:

A. *Old Clothes and Textiles*

Second-hand ceremonial brocade robes called *jittoku* or *sodemono,* highly prized by the Ainu and worn by them on resplendent occasions such as an *omusha* or *uimamu.* Silks, cottons, and brocades in pieces or rolls. Most highly valued was the brocade called *santan-gire* or *tan-gire.* It came in dark blue, yellow, red, brown, deep blue, reddish brown, and grey, and was embroidered in golden thread with dragons, peonies, clouds, or chrysanthemums. Its value depended on color and design, with dark blue being the most highly prized color and the dragon the most sought after design. Indeed the most valued brocade was called *bodan* or dragon cloth. Also treasured were delicate bits of embroidery, called *tsuzureno nishiki* (lit. "figured brocade") to be used on handbags, *obi,* surplices, etc. The brocades were mostly in pieces which were sewn together or occasionally in twelve-foot rolls.

Other textiles, in rolls, were *shusu* or *jusu* (satin), *donsu* or *shari* (satin damask), *monpa* also called *kuhachi-infu* or *hakuchinha* (cotton flannel), *unsai-ori* or *boshi* (cotton drill) which was also called *kara-momen* or *kara sarasa.* All of these textiles were woven in Nanking, Suchow, or Hangchow to the order of the Peking government for the trade in the north. The names of the Chinese weavers can still be read on surviving pieces of these materials which came from the end of a roll. Since these fabrics were given by the Chinese government to native chiefs when accepting "tribute," some of the more valued textiles received local native names. The prized dark blue brocade was known as *harata,* for it was presented to the *Harata* or tribal chief and the yellow brocade was *kashun,* for it was given to the *Kashinta* or head of a family. Since the textiles were Chinese-made they also came into Japan via the Chinese trade at Nagasaki, but the northern imports were superior to those in the regular trade channels at Nagasaki because they were Government-made goods for a government trade.

B. *Beads*

The ornamental beads were called blue beads, Karafuto beads, or insect nests. They came in various shapes—round, cylindrical, large and small, and in snow white and varying shades of blue—purple, bluish purple, indigo, light blue and dark blue with an occasional reddish yellow listed on the invoices. The predominant color gave rise to the general term "blue bead" but also used were *rokan*

(a bead shaped stone), *hinshu* (a species of small clam resembling a bead), *sekisan* ("silkworm stones") and *aomushi* ("blue insect nests"), the last term because the beads were often thought to be the nests of small coral-like insects found in the sea. *Aomushi* was the most common name in Japan for these trade beads and may have come from the fact that they were so crudely pierced that no one thought they were made by human hand. These beads were made in Manchuria and were known in China as *kitan* beads (from the land of the Khitan Tatar). These beads, considered as indispensible ornaments by Ainu women, were traded by size. Large ones were bartered individually, while small ones were sold by strings. In the nineteenth century the Japanese began the manufacture of these beads for the northern trade and the Japanese product displaced the Manchurian.

C. *Animal Products*

Eagle feathers for arrows were the most valued item of the whole trade at both the Japanese and Chinese ends. Most of the feathers came from Saghalien, but Amur River eagle feathers were popular in China and were also imported into Japan. They were classified as *saneba* (the 14 tail feathers of a full-grown eagle or the 12 tail feathers of a young eagle at least three years old); *kasuo* (the tail feathers of a one-year-old eagle); *usunyo* (the tail feathers of a two-year-old eagle), and *horo* (the wing feathers of the eagle). The feathers of a single bird were the "tail" and ten tails were a "batch." Walrus tusks were prized as a disinfectant and a medicine for dropsical swellings as well as furnishing excellent material for long-stemmed pipes. The bulk of trade in animal products was, of course, skins. These were hunted by the Ainu for the Japanese who in turn used them as the chief medium of trade in the Santan trade. Otter, fox, badger, deer, marten were the chief furs traded, and the black marten fur was the standard of value in the trade.

D. *Prices*

Because there was never any fixed price in the trade and because exchange fluctuated with the supply of goods, it is difficult, if not impossible, to establish any general scale of prices. The following list is taken from a year (1802) when the trade had been reasonably stabilized by Shogunal agents and represents the price paid by Shogunal agents for Sino-Manchurian goods in Saghalien.

One brocade ceremonial gown.	Forty-two marten skins or more. The rate to vary with the freshness of the skins.

One leather ceremonial gown.	Ten marten skins. The rate to vary as above.
Dark blue, red or brown brocade with dragon design. One roll of about 20 feet.	Forty marten skins. The rate to vary as above.
Blue brocade with dragon design. One roll of 20 feet.	Thirty-five marten skins. Rate to vary as above.
Dark blue or red brocade with peony design. One roll of about 20 feet.	Thirty marten skins. The rate to vary as above.
Enough cotton cloth for one outfit of clothing (about 13-14 yards).	Two marten skins.
Enough satin damask to make one outfit of clothing.	At least nine marten skins. The rate to vary with the quality of satin damask.
Blue beads.	The rate varied with size. An average price was fourteen marten skins for a string of 100 small beads and two marten skins for 10 medium sized beads.
One "batch" of *saneba* eagle feathers.	A minimum of twenty-five marten skins.
One pipe.	One marten skin.
One Santan bow.	Two marten skins.

The rates paid at the same time by the Santan for Japanese and Ainu goods were:

One otter skin.	Two Saghalien marten skins.
Four marten skins from Hokkaido.	One Saghalien marten skin.
One fox skin from Hokkaido.	One Saghalien marten skin.
Three badger skins from Hokkaido.	One Saghalien marten skin.

One sack of rice containing one-fifth of a bushel.	Four marten skins of Saghalien.
One sack of yeast containing about one-fifth bushel.	Four Saghalien marten skins.
Three pints of *sake*.	One Saghalien marten skin.
One bundle of tobacco.	One Saghalien marten skin.
One sword.	Nine Saghalien marten skins.
Thirteen-fourteen yards of white cotton cloth.	Four Saghalien marten skins.
Pans, capable of cooking three pints to forty-six pints of rice.	Four to thirty Saghalien marten skins.

SOME EFFECTS OF TRADE ON AINU LIFE

It is obvious that the Ainu were not an isolated people. To the south they had been in contact with Japanese civilization for over a millenium. To the north they had been in contact for centuries with the nomadic Gilyak and Orokko of Saghalien and, beyond them, the quasi-Sinicised nomads of the lower Ainu. To the northeast they linked up with the Kamchatka aborigines via the Kuriles chains. These contacts developed into trade, the long range effects of which made a radical change in Ainu life. The introduction of cotton cloth, at first as a ceremonial gown and later as everyday apparel, brought with it the art of weaving cloth from vegetable fibers. This meant the abandonment of their ancient art of making clothes by using tendon and grass fibers to sew together bird, animal, or fish skins. This is more easily evidenced by the fact that until comparatively recent times a few remote Ainu areas, which had had no contacts at all, had no knowledge of textile techniques. The infiltration of iron tools replaced the old stone and bone tools and the skills of making them with the same differential in remote areas. So did Japanese pottery cause them to forget their ancient art of making earthenware. The improved fish net of hemp, the iron harpoon, sickle, machete, fish hook, and knife profoundly affected their economy, for it made fishing easier, more productive and more profitable, and promoted the development of agriculture which, in turn, was the first means they had for tiding themselves over the desperate winters. They were introduced to the use of dogs for

hauling, transportation, and food by the continental nomads, and they became skilled dog breeders—particularly in Saghalien. Each of these items—iron, textiles, and dogs—came to them through trade channels. And as they developed the techniques necessary to change their economy to either an agricultural or stock-breeding one from their hunting and fishing stage, the variety and quantity of goods which they produced rose from the subsistence level to the point where they could accumulate a surplus for trade. With the use of a surplus of goods, they began to accumulate wealth. They prized brocades, beads, and ornaments from the continent and lacquer, swords, cheap armour, tobacco, rice, and rice wine from Japan, and the measure of wealth became the accumulation of these objects. Thus a people, who from antiquity had never had more than the bare necessities and who had practiced communal sharing and property holding, began to develop caste lines based on possessions gained from the trade. For the accumulation of treasured objects could be used to purchase fishing grounds and in expiation of crimes.

Finally, the concept of leadership changed. The old system where the ablest war leader and peace-time conciliator was chief gave way to the time when the wealthiest became chief—those Ainu who gained material wealth by trade were able to provide for a larger and larger personal following, which meant the largest available labor supply, which in turn meant the accumulation of greater wealth. Although it must be pointed out that even though wealth had its rewards and the chief was free to do as he pleased with his wealth, he was always obligated to the economic protection of his village and in that sense his wealth was common property.

These were all changes in the life of the Ainu attributable to trade contacts, mostly operating from the seventeenth century onward.

CONCLUSIONS

1. The Saghalien trade, arcing through a considerable reach of land and sea with its roots in China and Japan, brought the aborigines of the lower Amur River, the island of Saghalien, and the island of Hokkaido into intimate contact. It is worthy of further study.

2. This trade made the island of Saghalien a depot of exchange for the goods of two civilized cultures and several primitive cultures, and had a reasonably important effect on the culture of the Ainu.

3. In its later days this trade is an interesting example of the use of primitive commerce as a political measure for appeasing or dominating a native people.

Bibliography

This summary has been drawn from the following sources in the Japanese language of which the first four are indispensible to a study of the Ainu.

Takakura Shinichiro, *Recent Trade between Japan and Manchuria with Some Reference to Saghalien* (Research Studies on the Northern Area, no. 1, pp. 1-32, Sapporo, 1939).

Takakura Shinichiro, *A History of Ainu Policies* (Tokyo, 1942: Chapter I).

Rinsō Mamiya, *Travels in Northern Ezo* (Edo, 1854).

Rinsō Mamiya, *Travels in Eastern Tartary* (reprinted, Northern Gate Library, vol. 5, Tokyo, 1942).

Takakura Shinichiro, *Ainu Agriculture* (Research Reports in Agricultural Economics, no. 33, pp. 115-140, n.d.).

Mogami Tokunai, *Ezo Diary* (reprinted, Northern Gate Library, vol. 1, Tokyo, 1943).

Shibata Sadakichi and Takakura Shinichiro, *History of the Cartography of Saghalien with Reference to Japan* (Research Studies in the Northern Area, no. 2, pp. 1-49, Sapporo, 1939).

University of Florida
Gainesville, Florida

MESOLITHIC REMAINS OF THE SAMPUNG STAGE IN JAVA: SOME REMARKS AND ADDITIONS

D. P. ERDBRINK

THE INTENTION of the present paper is to resumé and present supplementary evidence for a Mesolithic stage in Java with which are associated remains of macrodont individuals of Melanesoid-Australoid type. The writer's conviction is that this archaeological and skeletal evidence supports the view that peoples of this racial type migrated through this area, being there succeeded by a non-Melanesoid people with a Neolithic culture.

It may be remembered that particulars of the type locality—the rockshelter Guwo Lowo near the village of Sampung[1] were first published by Van Es,[2] who discovered the shelter in the year 1926. At the same time some additional data were given in an excursion-guide leaflet by Van Stein Callenfels.[3] A far more detailed study, giving the archaeological results of a systematic excavation of the Guwo (cave) Lowo, was published by Van Stein Callenfels in 1932.[4] This volume also contains a short note by Dammerman[5] on the animal remains which were found during these excavations, and a thorough study by Mijsberg[6] of the human remains (approximately eight skeletons) encountered at Sampung and also at several rockshelters (among which is that of Dander) much farther to the north in the residency of Bodjonegoro. Some archaeological data from these latter localities were given by Van Stein Callenfels in his cited publication of 1932. There were also included somewhat general remarks and a map, both

1 Situated near the lake of Ngebel on the western slope of Mount Wilis and to the southeast of the town of Madiun in the residency of the same name, which lies in the western part of East Java.

2 L. J. C. van Es, *The Prehistoric Remains in Sampoeng Cave, Residency of Ponorogo, Java* (Fourth Pacific Science Congress, Java 1929: vol. III, Biological Papers, pp. 329-340, Batavia-Bandoeng, 1930).

3 P. V. van Stein Callenfels, *Pre-historic Remains in Poenoeng, Sampoeng and Dander* (Fourth Pacific Science Congress, Java 1929: Excursion E 5, 7 pp.)

4 P. V. van Stein Callenfels, "Note préliminaire sur les fouilles dans l'abri-sous-roche du Guwa Lawa à Sampung" (in *Hommage du Service Archéologique des Indes Néerlandaises au Premier Congrès des Préhistoriens d'Extrême-Orient à Hanoi 25-31 Janvier 1932*, pp. 16-32, Société Royale des Arts et des Sciences de Batavia, Batavia, 1932).

5 K. W. Dammerman, "Donnée provisoire des mammifères trouvés dans la grotte de Sampoung à Ponorogo" (in Van Stein Callenfels, *Note préliminaire*, Annexe I, pp. 30-31).

6 W. A. Mijsberg, "Recherches sur les restes humains trouvés dans les fouilles des abris-sous-roche de Goewa Lawa à Sampoeng et des sites préhistoriques à Bodjonegoro (Java)" (in *Hommage du Service Archéologique des Indes Néerlandaises*, etc., pp. 39-54, Batavia, 1932).

referring to the many Neolithic workshops found near the southern coast of the residency of Madiun, around the villages of Punung and Patjitan.

His opinion—that the remains from the Bodjonegoro rockshelters belong to the same cultural stage as the remains from the oldest layers of the rockshelter at Sampung and to the same people—seems to have been borne out by the results obtained by Mijsberg, who declared: "La probabilité se dessine, que l'homme préhistorique en question se rattache aux races caractérisées par la possession de molaires à grandes dimensions, les Papouas, Mélanésiens, Australiens."[7]

In my opinion it is no mere accident that the two well-known fossil skulls from Wadjak were found at the Wadjak marble quarries near Trengalek, to the south of Mount Wilis, not more than about fifteen miles in a direct line from the lake of Ngebel and Sampung village. The Wadjak skulls, described by Dubois, belonged to a type of men which was originally thought to be pre-Australoid but which may just as well be considered as Melanesian or Australoid according to the opinion of more recent authors.[8]

Van Stein Callenfels succeeded in showing that the rockshelter at Sampung, in which the layer with cultural remains showed no visible stratification, contained remains of at least two, and perhaps three, cultural phases. The uppermost layer belonged to the Neolithic stage, as it contained remains of primitive pottery, polished stone adzes, and even some bronze objects. (Some more recent remains, such as Chinese coins, iron objects, and fragments of pottery of historic times, found at and near the surface, must be left out of this discussion.) Below this came a layer in which bone objects were predominant, especially two different types of spatulae, together with a number of grinding stones and hollowed stone basins, with and without traces of a red clay, obviously used for painting purposes. Below this, and forming the lowermost part of the layer with cultural remains, a great number of larger and smaller flint arrowpoints was found. Many of these had a rounded base, as opposed to the more finely worked, forked arrowpoints made of the same cream-coloured silicified limestone which were also found at Bodjonegoro, and which are quite common in the Neolithic workshops around Patjitan and Punung to the south. Table IV in Van Stein Callenfels' publication (1932), giving a vertical section of the Sampung rockshelter with the frequency of recovered objects and their positions relative to each other, nicely

7 *Op. cit.*, p. 54.

8 Recently Sauter pointed to the great resemblance of the Wadjak I skull with Melanesian and Australian (especially, however, with Tasmanian) skulls (M. R. Sauter, "Essai d'application de la méthode des profils graphiques (Leroi-Gourhan) à la craniologie australienne," in *Südsee-studien, Gedenkschrift zur Erinnerung an Felix Speiser*, Museum für Völkerkunde und Schweizerischen Museum für Volkskunde, pp. 189-203, Basel, 1951, p. 200).

illustrates this (otherwise indistinguishable) division of the culture-bearing layer into different stages. The human remains were all found at the level with arrowpoints and at that with bone spatulae. It is possible that these levels must be taken together as representing only one period, because the much thinner levels in the Bodjonegoro rockshelters also contained a mixture of bone implements and round-based, as well as forked, arrowpoints.

Although Van Stein Callenfels included a description of Neolithic remains from the region around Patjitan—which may be somewhat confusing—I think that it remains perfectly clear that this inclusion was only meant for the purpose of comparison, namely, with the Neolithic objects from the upper layer at Sampung. These indeed seem to be of the same kind. While there is therefore no objection to the designation of these younger objects as Neolithic, the question to which cultural stage the bone spatulae and the primitive arrowpoints (with round base) have to be assigned is somewhat more difficult. The absence of objects of polished stone and of pottery at the Bodjonegoro rockshelters, and also at two new localities which will shortly be described in this article, seems to point to the fact that we may not use the word Neolithic for this more primitive culture stage. (In my opinion the few pieces of polished stone and pottery from Sampung described by Van Stein Callenfels and Van Es belong to the same grouping as the Neolithic polished stone adzes and perhaps also the bronze objects. It is remarkable that the data in Van Stein Callenfels' Tables III and IV show that pottery fragments, with only two or three exceptions, have been found at a higher level than the main body of bone spatulas.) On the other hand, the faunal assemblage found at Sampung indicates that the accompanying implements cannot be as old by far as the truly Palaeolithic implements usually associated with the Neanderthal-like Ngandong man from the Solo Valley to the north of Madiun. The faunal list published by Dammerman[9] includes only one species, the Indian elephant (*Elephas maximus* L.), which is extinct in Java at the present time. The other species found at the Guwo Lowo shelter[10] are still living on the island.

---

9 *Op. cit.*, pp. 30-31: remains found in the lower part of the culture-bearing layer at Sampung, "Couche B."

10 Including:

Macaca irus
Pithecus pyrrhus
Nycticebus coucang
Bos banteng
Cervus hippelaphus
Muntiacus muntjak
Tragulus kanchil
Sus vittatus
Rhinoceros sondaicus
Felis bengalensis
Paradoxurus hermaphroditus
Cuon javanicus
Lutra cinerea
Hystrix javanica
Petaurista petaurista
Ratufa bicolor

STONE IMPLEMENTS FROM CENTRAL JAVA

1-3, Neolithic arrowpoints from the Southern Mountain region around Punung near Patjitan, southeastern Central Java; 4-6, Small Neolithic arrowpoints of the types believed by Van Stein Callenfels to have been used for bird hunting, from the same region; 7-9, Arrowpoints of primitive aspect with rounded or truncated bases, comparable to those from the lower layers at Sampung, from the region around Punung; 10-13, Pointed and scraper-like implements from the Gunung Tjantelan excavation near Punung.

STONE IMPLEMENTS FROM WEST JAVA

14-18, Burins and scrapers from an open-air site (near hill 595) on the Panoembangan tea estate, south of Sukabumi, West Java; 19, Disc-scraper; 20, Large burin; 21, Core; 22, Core or flat scraper; 23, Core reworked as a scraper; 24, Combined scraper and burin; 25, Two nodules of cave loam, from lowest layer of excavation in the cave, containing charcoal, ashes, and bone splinters.

Because Neolithic objects follow immediately on the more primitive implements at Sampung, we may safely attach the label "Mesolithic" to such remains as those found in the lower part of the culture-layer at the Guwo Lowo. There is no directly visible boundary between the two cultural stages in a profile through the cave, only a change in frequency of the different objects. This indicates the absence of a stratigraphical hiatus. Thus here again the stipulation is fulfilled[11] that a Mesolithic culture fills the gap between the two large divisions in prehistory, in this case the prehistory of Java.

The gradual transition in form from the primitive, round-based arrowpoints into the graceful Neolithic ones, which have the shape of an inverted letter V, is not only demonstrated at the Guwo Lowo, but also at several localities in the Southern Mountains (Gunung Kidul) around Punung and Patjitan. The latter have been indicated in part by Van Stein Callenfels on his map (Table V) with the locations of Neolithic open-air sites. Occasionally a few smaller types of arrowpoints have been found together with both the primitive and the more developed forms. These smaller points may be either narrow or broad-angled.[12] They were erroneously (in my opinion) thought by Van Stein Callenfels to have been used for the hunting of birds.[13] In all probability the abundance of raw material at all these localities has attracted the manufacturers of arrowpoints from the Mesolithic Sampung stage onward far into the Neolithic, when more graceful arrowpoints were produced, and, finally, also stone adzes. Possibly the stepped-up production of these adzes during the later part of the Neolithic stage accounts for Van Stein Callenfels' finding many localities in the Gunung Kidul where only stone adzes, and no arrowpoints, had been made.

A hitherto unreported locality, discovered in 1936 by Von Koenigswald, evidently had been inhabited only during the true Mesolithic stage, i.e. the stage represented by the lowest part of the layer with cultural remains at the Guwo Lowo. Again it is a rockshelter, located on the eastern side of a hill called the Gunung Tjantelan, close to the village of Punung (to the northwest of Patjitan, near the coast of the Indian Ocean to the south of Madiun). A preliminary excavation in 1936 yielded a large number of flint flakes, some hammer-stones (of andesite and trachyte), several arrowpoints of the primitive type with a rounded base, scrapers, bones and teeth, and pierced shells of snails, evidently used as

11 A. Vayson de Pradenne, *La préhistoire* (Paris, 1946), pp 115-116.

12 Such as are figured by Van Stein Callenfels (*op. cit.*) in Plates XII, G, K, L, M; XVII, C, F, G, H.

13 These small arrowpoints are still too heavy and bulky for that purpose; they may have been used for the hunting of small mammals.

components of necklaces (and comparable to finds of a similar nature described by Van Stein Callenfels from the Guwo Lowo). A few isolated human teeth were also found; these have large dimensions and are comparable only with those described by Mijsberg from Sampung. Absolutely no remains of pottery or of polished stone adzes, nor of the graceful Neolithic (inverted-V) arrowpoints were encountered. A few milling-stones have been found, of the type known from Sampung. Remains (bones, teeth) of one species of animal were greatly preponderant when compared to the few teeth and bones of other species with which they formed a kind of kitchen-midden. Whereas at Sampung it was the Monitor lizard,[14] here it was the gray Crab-eating Macaque (*Macaca irus*), a monkey which is still very common in Java.

A possible explanation of the striking preponderance of remains of one species of animal over all others which fell prey to the rockshelter people of the Sampung stage, is given by the totemic beliefs encountered among Melanesians and Australian aborigines of today.[15] Because it seems fairly certain that the bearers of the Mesolithic Sampung culture have been Melanesoid or Australoid—therefore related to the recent Papuans or to the Australian aborigines—we may perhaps assume that the belief in totemism was already prevalent among them. What would be more logical than to suppose that the inhabitants of the Guwo Lowo shelter belonged to a Varanus-boan, and those of the Gunung Tjantelan site to a monkey-boan, or to a boan named after an animal which has the monkey as its chief prey (for instance the leopard)?

A third site was discovered by the present author and one of his cousins,

14 A superficial examination of undescribed material, excavated at Sampung by Van Stein Callenfels, has left me with the memory of a truly astonishing number of bones of the common Monitor lizard or Varanus (*Varanus salvator*), which still lives in fairly large numbers in the remoter parts of Java. This large lizard must have formed a very important part of the daily diet of Sampung man; it remains a mystery why it was not included by Dammerman in his faunal list.

15 The Papuan tribe of the Marind-anim in southeastern Dutch New Guinea, to take an example, or the Australian Arunta tribe (Spencer and Gillen, *The Arunta, a Study of a Stone Age People*, 2 vols., London, 1927) believe themselves to be differentiated into a number of clans, each of which is identified with a certain animate or inanimate object, from which the members of the clan (called boan among the Marind people) believe themselves to be descended. Two possibilities may be the result of this belief in Knanja (or Alchera), as it is called by the Arunta: either the animal, plant, or rock from which the clan derives its name is absolutely taboo to the members of the clan (this is the most frequent situation; it seems to have evolved from the second possibility); or the object with which the members of the "boan" feel themselves related is eagerly sought after and used or consumed, with the intention of absorbing its distinctive qualities as much as possible. Spencer and Gillen (*op. cit.*, vol. 1, pp. 86-87) also concluded that "the members of a totem not only theoretically had, but actually practised, the general right of eating their totem."

Lt R. H. Kerkhoven, RNN, in West Java in the year 1937. The exact locality is an unnamed cave halfway between the Pasir (hill) Tjilawang and the hamlet of Tondjong, on the tea estate Panoembangan (near Bodjong Lopang, to the south of Sukabumi). Remains found here must be referred to the same Mesolithic Sampung culture because of the identical character of the very few flint implements, but mainly because of a palaeontological argument, the occurrence of a fossilized fragment of a tooth (M_1, dext. ?) of the Sumatran race of the Indian elephant (*Elephas maximus sumatranus*), a species also known from Sampung. This particular molar had been blackened by fire on one side. Two other pieces of bone, probably referable to a Bovid (*Bos* cf. *banteng*), had also been charred by fire; one of them shows a facet where it has been cut obliquely, and both show abundant traces of gnawing by rodents (porcupines?).

The cave of Panoembangan (a description of which was given by me in an earlier publication[16]) consists of two main divisions, each with its own exit to the outside into separate dolines, and joined by a very narrow and hardly passable tunnel. A subterranean brook runs through the whole system, and has deposited quite large mud banks in different parts of the cave. The fossilized remains of animals were all found in the northern part of the cave. Of the six recovered flint implements, five were found there also, and one in the southern part. The bulk of the material was found lying in the brook near a particularly large mud deposit at the southern end of the northern part of the cave, and I therefore decided to make a superficial excavation in this bank. Three distinct levels could be distinguished: the two upper ones consisted of brown cave loam without any remains, while the lowermost layer, a hard-packed gravel, contained many fine bone splinters mingled with charcoal, together with a number of large stones, roughly arranged in a circle.

Owing to lack of funds and time I was unable to enlarge this preliminary trench, but a systematic excavation of the whole mud deposit will undoubtedly lead to results in the future.

It may be interesting to note the presence of a certain number of queer engraved lines (with a little imagination a bird could be recognized), circles with dots in the center, etc., on the cave walls in the narrow tunnel between the two larger parts of the cave. The only reason for considering these lines as perhaps having been made artificially, may be found in the fact that their section (i.e. a horizontal section of the cave wall at this particular spot) has the form of a letter V, and not that of a shallow U which is to be expected if the lines were caused

16 D. P. Erdbrink, *Een vindplaats van mesolithische cultuur in West-Java* (Cultureel Indië, vol. 5, pp. 124-127, Leiden, May-June 1943).

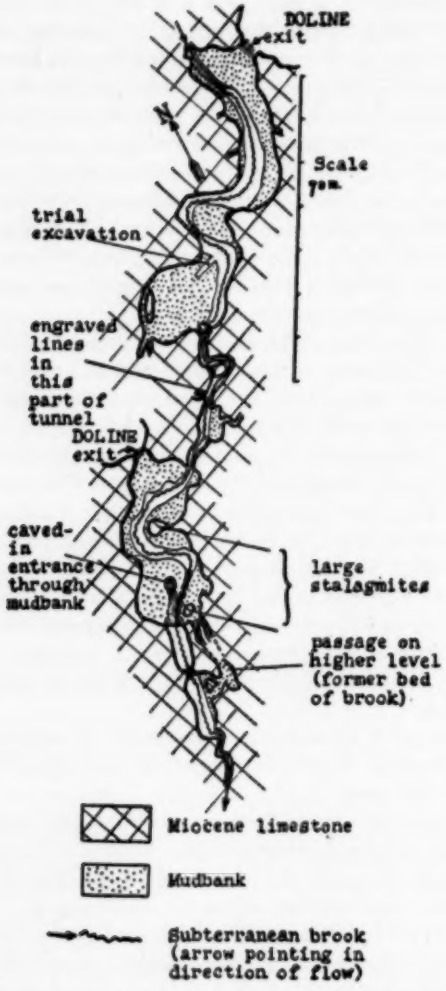

FIG. 1. Sketch map of cave between Pasir Tjilawang and Tondjong, Panoembangan tea estate near Sukabumi, West Java.

by the agency of humous or animal acids. (The cave is inhabited by a large number of bats, by porcupines, and by some snakes.) The downstream (southern) part of the southern half of the cave is formed by two galleries, to be entered through a hole in the last mud bank in this part of the cave.[17] Roots of trees penetrate downward through the roof of these two galleries, indicating that the surface must be near. No prehistoric remains were found here. The accompanying sketch map of the cave is copied from the 1943 publication.

Apart from these cave finds, a small open-air site nearby seems to be the only indication of the presence of remains of the Mesolithic people of the Sampung stage in West Java hitherto recorded. This find consists of three arrowpoints, a miniature sidescraper, and a combination of scraper and burin. The site is also located on the Panoembangan tea estate and situated in a gully near a hill, the summit of which has the exact height of 595 meters above sea-level.

Concluding, I have tried in this article to stress the importance of the proposed decision that the Sampung culture must be assigned to the Mesolithic stage, and not, as has been done elsewhere, to an early Neolithic one. To this end I have described, in rather condensed form, some of the most important results from the excavation of the type locality and also from two hitherto relatively little known new Javanese sites where the same culture occurs.

The question whether the bearers of the Sampung culture were the precursors of the present Papuans or Melanesians, or of the Australian aborigines, must remain undecided until more evidence may be found pointing in one of these directions. It should be pointed out, that whereas the Papuans are usually acquainted with the arts of grinding and polishing their stone implements and of making pottery, some of the Australian aborigines are not so fully Neolithic as regards their cultural stage; they may quite correctly be considered as still living at the Mesolithic stage. As was remarked by Hooijer,[18] as well as by Von Koenigswald,[19] there is no doubt that the large size of the teeth excludes the possibility of the human remains belonging to other races than those mentioned here.

I have expressly omitted to mention other localities where remains have been

17 This part of the cave has a round aperture in the center of its roof, giving access to the surface.

18 D. A. Hooijer, *Fossil Evidence of Austromelanesian Migrations in Malaysia?* (Southwestern Journal of Anthropology, vol. 6, pp. 416-422, 1950).

19 G. H. R. von Koenigswald, *Evidence of a Prehistoric Austromelanesoid Population in Malaya and Indonesia* (Southwestern Journal of Anthropology, vol. 8, pp. 92-96, 1952). See also the answer to this article by Hooijer (*idem*, vol. 8, pp. 473-477), which, in my opinion, is not convincing (in view of the arguments against this answer, brought forward by Vallois in l'Anthropologie, vol. 57, pp. 362-364, Paris, 1953).

found of what has probably also to be assigned to the Mesolithic Sampung culture, so as not to make this paper too lengthy, but it should be noted that several more of these localities are known from Java, Sumatra, and Malaya. In each case the Australo-Melanesian people with large teeth are associated with them, and at most of these places the cultural remains are of a very primitive nature. In Sumatra and at some Malayan localities the culture is characterized by large kitchen-middens, which sometimes contain primitive coup-de-poing-like implements, as described by Van Stein Callenfels.[20] Many of these localities, together with the bibliographical references pertaining to them, may be found in the cited papers by Hooijer and Von Koenigswald.

From an archaeological point of view all the available evidence supports the theory that a Melanesoid migration from the Asiatic continent to the southeast has taken place. It was followed at a much later date by migrations of non-Melanesoid peoples with small teeth, living in a Neolithic cultural stage (with polished stone implements and pottery). These Neolithic people have pushed the Melanesoids before them, and have occasionally intermingled with them. This has been convincingly argued by Snell[21] who found subfossil human remains in the southeastern tip of East Java (on the south coast) showing a mixture of Melanesoid and Malay features, while he also encountered this mixture of traits in a recent Javanese skull.

The reader may be referred to the cited publications by Hooijer and Von Koenigswald for the arguments against, and those in favor of, this migration theory, as based upon anthropological data. It is regrettable that Hooijer did not take into account the archaeological evidence in support of the view that this Melanesoid migration took place, because otherwise a confusion of anthropological data from Mesolithic sites and from several undoubtedly Neolithic ones would not have taken place.

Nor do I think that Bandi[22] is right in following Van der Hoop's supposition that there are relations between the stage with arrowpoints (lower part of the culture-bearing layer at the Guwo Lowo) from Sampung and the younger stage of the Toalian from Celebes and East Java. The arrowpoints (at least the primi-

20 P. V. van Stein Callenfels, *An Excavation of Three Kitchen Middens at Guak Kepah, Province Wellesley, Straits Settlements* (Bulletin, Raffles Museum, series B, vol. 1, pp. 27-37, Singapore, 1936).

21 C. A. R. D. Snell, *Menschelijke Skeletresten uit de Duinformatie van Java's Zuidkust nabij Poeger (Zuid Banjoewangi)* (Thesis, Soerabaia, 1938, 135 pp.).

22 H.-G. Bandi, "Die Obsidianindustrie der Umgebung von Bandung in Westjava" (in *Südseestudien, Gedenkschrift zur Erinnerung an Felix Speiser,* Museum für Völkerkunde und Schweizerischen Museum für Volkskunde, pp. 127-161, Basel, 1951), see p. 157.

tive ones with rounded bases, preponderant in the lower part of the Guwo Lowo culture layer) are much too simply formed and too heavy in character to admit of comparison with the small and delicate, truly microlithic Toalian implements. The only modern counterparts of some objects of the Sampungian stage are to be found, in my opinion, among the bone points encountered among several Papuan tribes and among the stone implements of the Australian aborigines.

Baarn, Netherlands

THE EFFECT OF CLIMATE ON THE NEW WORLD MIGRATION OF PRIMITIVE MAN

JOHN R. MATHER

THE RELATION between climate and the cultural development of a people is basic to any determination of the antiquity of man in the Western Hemisphere. If the climate along part of the migration route to this hemisphere was, at any time in the geologic past, severe enough to require a type of cultural development not possessed by the migrating tribes, movement of these people through the region at that time would not have been possible. Thus, from a synthesis of archaeologic and climatic information it may be possible to obtain some idea of the most favorable periods during which different primitive groups might migrate to the Western Hemisphere.

At present, many of the time scales used in archaeology are undergoing modification. In the first few decades following the initial discovery of primitive skeletal remains, in Gibraltar in 1848, lack of knowledge prevented any good dating of early American man;[1] even as late as 1890 it was generally accepted that man inhabited the New World in pre-Wisconsin time (more than 100,000 years ago).[2] After 1890, however, the rise of the concept of the morphologic dating of fossils, championed by Aleš Hrdlička, resulted in the complete denial to early American man of any antiquity greater than a few thousand years.[3] There was great reluctance on the part of the large majority of American archaeologists to refute the morphological dating argument in view of the lack of any discovery of primitive skeletal remains in this country. In recent years, however, under the weight of accumulating evidence from climatology, geology, botany, languages, and ecology,[4] the date of migration of ancient man to the Western Hemisphere has been pushed back to 15,000 to 25,000 years ago, although the lack of recognized primitive skeletal remains still precludes general acceptance of

1 A good account of the history of the antiquity of man in North America will be found in T. D. Stewart, *The Development of the Concept of Morphological Dating in Connection with Early Man in America* (Southwestern Journal of Anthropology, vol. 5, pp. 1-16, 1949).

2 G. F. Wright, *The Ice Age in North America and its Bearing on the Antiquity of Man* (New York, 1890).

3 A. Hrdlička, *Skeletal Remains Suggesting or Attributed to Early Man in North America* (Bulletin, Bureau of American Ethnology, no. 33, 1907).

4 E. Antevs, *Age of the Cochise Culture Stages* (Medallion Papers, no. 29, Globe, Arizona, 1941); G. F. Carter, *Evidence for Pleistocene Man in Southern California* (Geographical Review, vol. 40, pp. 84-102, 1950).

any great antiquity for this migration. Early American man is generally believed to have moved eastward and northward through Siberia and across the Bering Strait, possibly spreading southward into North America along the Mackenzie River valley. While this general path of migration may be assumed to be reasonable, it is still necessary to consider whether the accepted date for the earliest migration is realistic in view of the climatic conditions of the time and the cultural equipment of the possible migrants.

In order to attack the problem of the interrelation of climate, culture, and time, it will be necessary to investigate the Alaskan-Siberian Bering Strait climates, clearly a limiting factor in any migration of poorly clothed people, and to understand the general principles of the effect of climate on humans through a study of the heat exchange relation between man and his environment. Since a climate may limit the spread of a culture or a culture may change to permit survival in different climatic regions, it will also be necessary to investigate the cultural equipment required by people exposed to severe climatic conditions. The possible possession of this cultural development by the early migrants must be considered.

I. CLIMATE OF THE ALASKAN-SIBERIAN REGION

In the following discussion of the present climate of the Alaskan-Siberian migration region, only the wintertime conditions will be considered, for it is these conditions which would provide the critical barriers for the survival of primitive people. Early migrants to this hemisphere by way of Alaska almost certainly spent more than one year in moving from the temperate latitudes of Asia to comparable latitudes in North America. By the shortest route over a Bering Strait land bridge, this distance would be more than 3,000 miles. Since the early migrants to this hemisphere probably had no idea of where they were going or of the character of the region around them, it must be assumed that the paths they followed during migration would be far from direct. Unless following a food source or being pursued, the necessity for continued, almost daily, movement would be lacking and several generations of migrants might develop during the passage through the sub-Arctic region. Therefore, they may have faced the rigors of many Arctic and sub-Arctic winters.

Maps showing something of the severity of the winter climate of eastern Siberia and Alaska have been prepared and are presented in Figures 1 and 2. Figure 1 shows the average number of days during the year on which the mean daily temperature is under 32°F and 23°F in northeastern Sibera, while Figure 2 shows the average number of days during the months of December, January, and

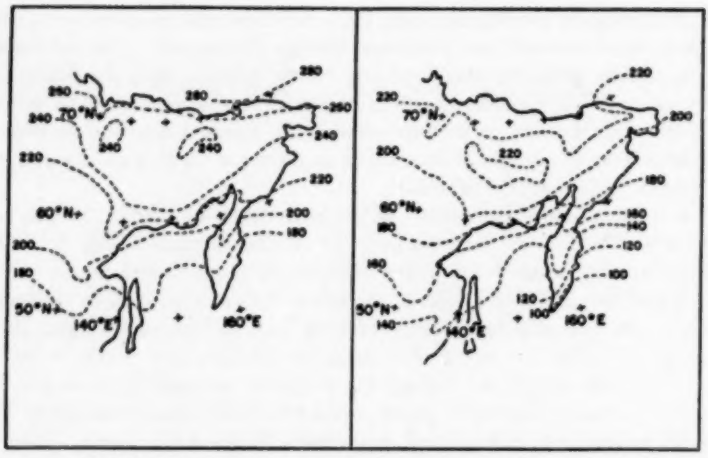

FIG. 1. Number of days in year with mean daily temperatures below 32°F (left figure) and 23°F (right figure) over eastern Siberia (from *Great Soviet Atlas of the World*, Moscow, 1937).

February that the mean temperature is below 32°F and 24°F in Alaska. From Figure 1 it is clear that north of 60°N in Siberia the three winter months experience mean daily temperatures almost constantly below 23°F. A survey of available weather data for eastern Siberia[5] shows that no station located north of latitude 59°N reports mean monthly temperatures warmer than 6.4°F during the months of December, January, February, and March. In central and northern Alaska over two-thirds of the winter period will have mean daily temperatures below 24°F. The figures clearly show the rigorous climate which will be encountered in any winter period in the Bering Strait region. Actually it is the Siberian part of the migration route, not the Bering Strait region itself, which possesses the most severe temperature regime, for the latter region is modified by its more maritime location.

Temperature, by itself, does not present a complete picture of the severity of a climate. Wind velocity is also of utmost importance in determining the climatic tolerance of human beings.[6] Although generalizations from wind data are often misleading, the average wind velocity over the Alaskan coastal region appears to vary from about 13 mph along the Bering Strait coast to about 7 mph along the

5 W. W. Reed, *Temperatures in Asia* (United States Weather Bureau, Climatological Division, 1931).

6 A. Court, *Wind Chill* (Bulletin, American Meteorological Society, vol. 29, pp. 487-493, 1948).

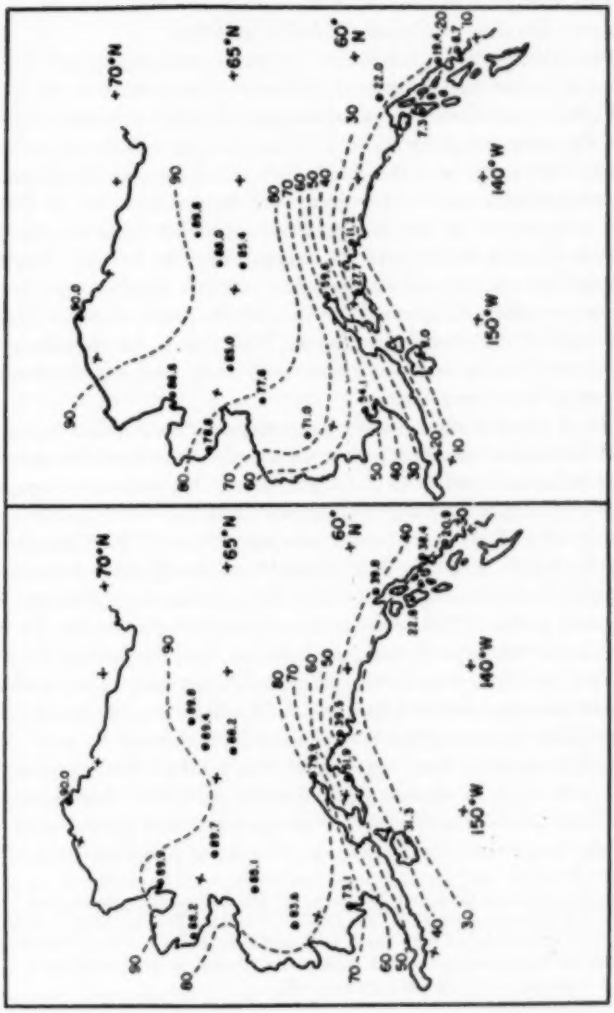

FIG. 2. Number of days during December, January, and February with mean daily temperatures below 32°F (left figure) and 24°F (right figure) over Alaska (from records in *Climatological Data, Alaska Section*, United States Weather Bureau, 1935-43).

Gulf of Alaska during the months of December, January, and February. Wind data from eastern Siberian stations are not readily available.

In order to calculate the radiative heat exchange between man and his surroundings, an important term in the over-all heat exchange relation which will be discussed later, it is necessary that some estimate of the mean black-body temperature[7] of the surroundings be made. The surroundings include not only the nearby terrain objects, but also the clouds and sky. Terrestrial temperatures, which in a snow-covered environment might well be approximated by the air temperatures measured in the standard meteorologic shelter, have already been discussed. Some estimate of the mean sky temperature must be made, however. With no atmosphere the mean sky temperature would be absolute zero. In the presence of an atmosphere the mean sky temperature increases, possibly being of the order of —150°F for clear sky conditions. With clouds, the black-body sky temperature is much warmer and in the presence of thick, low-lying clouds might approach the mean cloud temperature.

Direct measurements of the mean sky temperatures in the Alaskan region are not available. Sissenwine[8] has estimated, from a study of the upper air temperatures and the radiation equations in the Arctic region, that with an air temperature of —10°F the black-body sky temperature might be —32°F, while at an air temperature of —40°F the sky temperature might be —58°F. Although Sissenwine's figures can be used here, it is preferable to use the mean temperature at the prevailing cloud level to approximate the mean sky temperature. The temperature value used will then be the maximum possible value for the sky temperature and, hence, minimize the radiative heat loss from man to the sky since this loss is a function of the temperature difference between the two. It is desirable to minimize the calculated radiative heat loss, for it will then maximize the calculated survival ability of men exposed to the Bering Strait climates.

Based on observations at Anchorage and Bethel, Alaska,[9] the average winter temperature at 5,000 ft., a general figure for the prevailing cloud height, is about —10°C. (14°F.). This value may be accepted here as a general maximum value of the sky temperature for the purpose of radiation computations.

---

7 As used here, the mean black body temperature is the temperature value assigned to the environment for the purposes of computing the radiation flux from that environment, assuming it is a black body. A black body is a body which completely absorbs radiation of all wave lengths, i.e. none is reflected. Radiation from a black body is proportional to the fourth power of its temperature and is the maximum possible from any body.

8 Personal communication.

9 From *Upper Air Average Values of Temperature, Pressure, and Relative Humidity over the United States and Alaska* (Technical Paper, United States Weather Bureau, no. 6, 1945).

The Role of the Present Bering Strait Climate in the Reconstruction of Past Climates

The foregoing is a brief description of the present climate of the Bering Strait region. For the purposes of this paper it would be desirable to determine what the climate of this region has been like since the beginning of the last glacial period some 100,000 years ago. Although a quantitative reconstruction of the climates of this period is impossible at the present stage of our knowledge, it is possible to make a few qualitative judgments concerning the relation between the present and past climates in this region.

Present evidence of the Pleistocene glaciations shows that Alaska and eastern Siberia were relatively ice-free. Mountain glaciers extended in lobes down the mountains and onto the plains below, but, due to the dryness of the air, no extensive glacier cap developed. During glacial times an ice sheet would cover most of Canada to the Alaskan border. Available evidence points to the fact that the Alaskan-Siberian region was glaciated to an extent at least comparable to that of the present. Because of this, temperatures at least as low or lower than those of the present day should have been encountered over the Alaskan-Siberian region during glacial time. If temperatures equal or lower than those of the present day existed during the Wisconsin period—knowing the present distribution of climates in the region—the intervening succession of climates can be inferred. This inference is not entirely valid. The so-called "climatic optimum," coming 3,000 to 6,000 years ago, resulted in slightly warmer although possibly not "optimum" conditions. It is a matter of question whether an ice-free Arctic existed even during this optimum. Evidence of this "optimum" indicates that temperatures were only 3° to 5°F above the present in the regions where the optimum was most noticeable.[10] The Bering Strait region, far from the centers of the great ice masses, might expect relatively less change in the form of ice melt, new species of vegetation, or even daily temperatures to be noticed during the warm "optimum." Although no direct evidence is available, it seems unlikely that the Bering Strait region should experience temperatures more than 3° to 5°F above present conditions during the "climatic optimum."

As a first approximation, therefore, it appears logical to use the present temperature distribution in the Alaskan-Siberian region as maximum values of temperature in that region for any time since the onset of the last glaciation. This will give a basis from which the limitations these climates place on the migrations of man can be evaluated. After the physiological limitations to the tolerance of cold by humans have been considered, it will be possible to determine whether

10 R. F. Flint, *Glacial Geology and the Pleistocene Epoch* (New York, 1947), p. 491.

these rough temperature figures need to be refined in order to obtain closer approximations.

II. AN INVESTIGATION OF THE EFFECT OF CLIMATIC STRESS ON THE CULTURE OF PRIMITIVE RACES

Because of the lack of much factual information concerning the culture and habits of the primitive migrants to this hemisphere, the problem of evaluating the climate in terms of its effect on the early migrants is difficult. However, two approaches suggest themselves. First, it is possible to investigate people who are living today under severe climatic conditions to see what cultural development may be necessary for their survival. Second, the problem may be investigated from the modern physiological point of view by considering the effect of temperature and wind on heat loss from the human body protected with different amounts of clothing. If this heat loss greatly exceeds the possible production of heat by the body, the body will lose heat, its temperature will fall, and if continued for some time, death will ensue. These two methods of attack will form the subject of this and the next section.

An Investigation of the Tribes and Climate of Tierra del Fuego[11]

At present, the region around Tierra del Fuego, in southern South America, is the home of the primitive, poorly clad Alacaluf, Yahgan, and Ona peoples. Before contact with White men occurred, the Alacaluf and Yahgan peoples used to wear only small capes or mantles of seal, sea-otter, or fox skin. The capes, which would only cover the shoulders and chest, were worn with the fur outward. Frequently, they were left off entirely. No head coverings were used and the people went barefooted unless on a long journey when moccasins of sealskin were worn. The children were generally naked.

The Ona tribe, living in the interior hill region of the island chain, possessed slightly more in the way of clothing. Both men and women wore long capes of guanaco or fox skin which reached from the shoulders to the ankles. The capes could be tied across the chest. Leggings of guanaco skin were used in heavy snow. The Ona wore moccasins made from the skin of the guanaco's legs. These were tight fitting and relatively water resistant. They appear to provide excellent insulation against the cold, wet climate of the Ona region. It was common for the men to wear triangular peaked fur hats. The Ona women usually wore under

11 The material on the culture and habits of the Fuegians is adapted from the following works: J. H. Steward, ed., *Handbook of South American Indians:* Vol. 1, *The Marginal Tribes* (Bulletin, Bureau of American Ethnology, no. 143, 1946); C. R. Darwin, *Journal of Researches into the Geology and Natural History of the Various Countries Visited during the Voyage of H.M.S. Beagle Round the World* (London, 1839); E. L. Bridges, *Uttermost Part of the Earth* (New York, 1950).

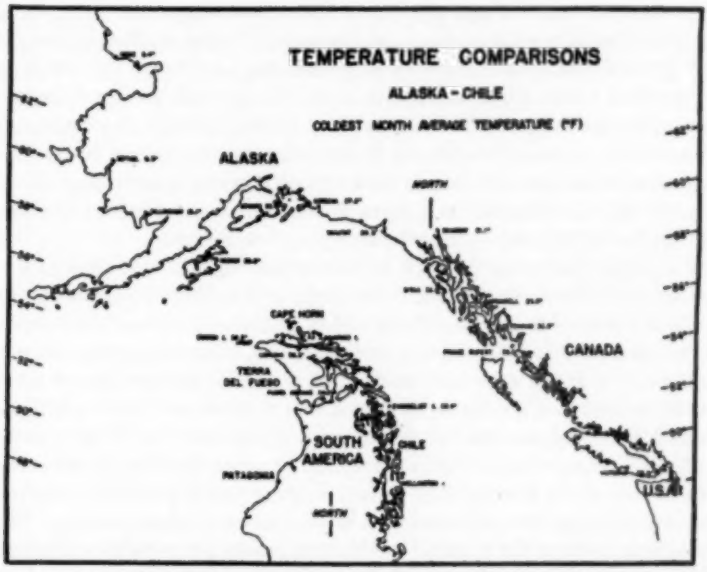

FIG. 3. Comparison of coldest month average temperatures (°F) at stations along Alaskan-Canadian coast and in southern South America. South America has been inverted and placed at proper latitudinal position in Northern Hemisphere.

the cape another fur garment, with the hair inward, which reached from the armpit to the knee. This garment was tied at the waist.

An investigation of the daily temperature distribution over the Tierra del Fuego region[12] shows that all stations report mean daily temperatures at least 4°F above the freezing point during over half of the days of each of the winter months. During these same winter months the minimum temperature falls below freezing on less than half of the days, although it is below 36°F nearly every day.

Mean winter temperatures in the Fuegian region are generally well above those found in western Alaska. This is shown more conclusively in Figure 3 in which the tip of South America has been inverted and placed at its correct latitudinal position in the Gulf of Alaska. It may be seen from the average coldest month temperatures shown that only the extreme southeastern portion of Alaska has temperatures as warm as those found in South America. Thus, it is possible that

12 From data in the *Anales* (Oficina Meteorólogia, Buenos Aires, vol. 1-19, 1878-1931); W. W. Reed, *Climatological Data for Southern South America* (Monthly Weather Review, Supplement no. 32, United States Department of Agriculture, 1929).

if the Alacaluf and Yahgan peoples of Tierra del Fuego were living in the Northern Hemisphere today they would extend no further northward along the coast than the vicinity of Sitka. This is an interesting conclusion, for it indicates that much of Alaska might be uninhabitable by people with a culture similar to the Alacaluf or Yahgan. Of course, no proof has been offered that these people are located in a region just on the borderline of possible survival. If the continent of South America extended farther south into more severe climatic zones there is no proof that the Alacaluf or Yahgan or some other group with a similar or equally primitive culture might not be located in these regions.

For people possessing the type of culture and amount of clothing of the Alacaluf or Yahgan, the freezing point might well indicate the lower temperature limit for possible survival. Under cool or cold, wet conditions the individual and his clothing may easily become wet. In drying, water evaporates and rapid cooling occurs. In the absence of much wind, it may be more efficient to remove wet clothes and to allow the rapidly dried skin to serve as a protection against the cold. With temperatures below freezing, wet conditions would not exist and the use of clothing would always be beneficial. However, with temperature conditions slightly above freezing, lack of any clothing would probably prove to be more efficient than the possession of a large amount of damp clothing. Thus, the clothing habits of the Alacaluf and Yahgan peoples are probably well adapted to their environment, but they would not be efficient at all if the temperature were to drop below the freezing point. There are no primitive, nearly naked races of men existing today in regions with mean monthly temperatures below freezing. This evidence certainly does not close the argument, but it is correct to say that prolonged temperatures below the freezing point place severe limitations on the existence of poorly clothed men.

The Clothing of Other Tribes Existing Under Severe Climatic Conditions

Eskimo clothing is well adapted to cold climates.[13] Usually it consists of two suits of furs; next to the skin a relatively thin shirt and trousers of animal skins is worn with the hair inside; and outside of this a suit consisting of a loose hooded shirt, trousers, boots, and mittens is worn with the hair or fur facing outward. Caribou skin is the most common material used for the costume but other furs may be substituted. The Eskimo clothing is tailored, but still fits very loosely.

The clothing of the tribes in central and western Canada such as the Atha-

13 Further discussion of the habits and clothing of the Eskimo will be found in V. Stefansson, "The Arctic Acculturation of Europeans" (in *Seminar on Problems of the Arctic*, The Johns Hopkins University, Dec. 15, 1949: processed); F. W. Hodge, ed., *Handbook of American Indians North of Mexico* (Bulletin, Bureau of American Ethnology, no. 30, Part 1, 1907).

bascans, while not as well made as that of the Eskimo, seems to follow many of their principles.[14] It consists of two parts: an upper shirt-like outer garment reaching to the thighs, made of caribou or moose skin in summer and hare skin or young caribou with the hair on in the winter; and leggings, of the same material as the upper part, which extend from the top of the thigh to the ankle. Moccasins and fur head coverings are worn by most of the tribes. The western tribes replace the upper shirt-like garment with a somewhat fuller robe or blanket worn like a mantle. During the winter some of these tribes add to the foregoing costume a small blanket of undressed furs which covers the body from the neck to the waist.

The clothing of the Chukchee and the Koryak tribes of eastern Siberia is very similar to the clothing of the Eskimos.[15] Caribou, reindeer, or seal skins are the most commonly used clothing materials. The clothes are formed somewhat differently from those of the Eskimo, but the principle of their design is the same. Two layers of clothing, with shirt and trousers, are worn, the outside layer with the hair out and the inside layer with the hair in. The fit of the clothing does not seem to be as good as that of the Eskimo. These Siberian tribes are not as well adjusted to the cold climates of their environment as are the Eskimo tribes of North America. The Chukchee and Koryak tribes, as well as the central Canadian tribes and the Eskimo, however, are all well equipped for a journey to North America at any time since the last glaciation. The difference between their clothes and those possessed by the Fuegians is significant in any discussion of the ability of different groups of people to survive severe climatic conditions.

Insulation Value of Clothing of Various Tribes Exposed to Severe Climatic Conditions

Clothing serves as an insulator which, by its own thickness and properties of preventing heat transfer and more especially because of the still air that is trapped within it, will reduce the amount of heat loss from a person to a cold environment. Because different assemblies of clothing provide different amounts of insulation against severe climatic conditions, it is necessary that some measure of the insulation value of different clothing assemblies be obtained. The "clo" unit of insulation is defined as the amount of insulation that will allow the passage of 1 kg cal of heat per square meter per hour with a temperature gradient of 0.18°C between the two surfaces.[16] The ordinary wool business suit has an

14 Hodge, *op. cit.*, p. 312.

15 F. R. Wulsin, "Adaptations to Climate among Non-European Peoples" (in L. H. Newburgh, ed., *Physiology of Heat Regulation and the Science of Clothing*, Philadelphia, 1949), pp. 16-17, 19-20.

16 A. P. Gagge, A. C. Burton, and H. C. Bazett, *A Practical System of Units for the Description of the Heat Exchange of Man with his Environment* (Science, n.s., vol. 94, 1941), p. 428.

insulation value of nearly 1 clo. At the present, the best clothing that has been designed for Arctic wear has an insulation value of about 4 to 5 clo, although this value is reduced by activity.

Winslow and Herrington[17] have indicated that in generally calm conditions, the average American man, nude and at rest in the shade, would be comfortable at an air temperature of 86°F. A fall in air temperature of about 16°F with low wind velocities must be accompanied by an increase in clothing insulation by one clo unit for continued comfort. The insulation value of the clothing assembly depends to a greater degree on the number and arrangement of the trapped air spaces in the clothing than on any property of the clothing itself.

The insulation value of the clothing possessed by the Alacaluf and Yahgan peoples of Tierra del Fuego must be almost negligible. Even the Ona should not be expected to have clothing of more than 1 or at the most 1.5 clo insulation value.

The insulation value of the clothing of the central or western Canadian tribes might reach 2 or 3 clo, while the clothing of the Eskimo, Chukchee, and Koryak peoples would appear to have an insulation value of 3 to 4 clo units, although the method of wearing the clothes and their fit would determine to a great degree their insulation value. These values are, of course, only subjective guesses based on an interpretation of the descriptions of the clothing. It is not possible to assign clo values to each individual piece of clothing, for it is the integrated effect of the entire clothing assembly which is of importance in insulation determinations.

III. THE HEAT EXCHANGE RELATION BETWEEN MAN AND HIS ENVIRONMENT

From the viewpoint of physiology, the human body may be considered to be a heat engine producing a constantly varying amount of heat. The human body is able to exchange heat with the surroundings through three main channels: radiation, conduction-convection, and evaporation-convection. The body may either gain or lose heat by means of conduction-convection and radiation depending on the relative temperatures involved. Heat is lost from the body by evaporation-convection.

The heat exchange relationship[18] between man and his environment may be expressed as:

---

17 C.-E. A. Winslow and L. P. Herrington, *Temperature and Human Life* (Princeton: Princeton University Press, 1949), p. 136.

18 A more complete discussion of the heat exchange relation will be found in D. H. K. Lee, *Basic Processes of Heat Exchange between Man and his Environment* (The Johns Hopkins University, 1950: processed) and J. D. Hardy, "Heat Transfer" (in Newburgh, *op. cit.*, pp. 78-108).

$$S = (M - W) - (R + C + E)$$

where S is the rate of heat storage,

M is the rate of total metabolic energy production,

W is the rate of external work performed, expressed as its heat equivalent (about 10 to 15% of the total energy production for occupations involving moderate to heavy manual labor),[19]

R is the net rate of heat exchange by radiation between man and his environment,

C is the net rate of heat exchange by conduction-convection between man and his environment,

E is the rate of heat loss by evaporation-convection to the environment.

The total metabolic energy production (*M*) represents the net rate of conversion of potential energy into external work and heat by the body. It can be divided into four categories.

(a) "Basal" metabolic rate is the rate at which energy is liberated under standard resting conditions. Its average value is 40 kg cal/m²/hr.

(b) Extra metabolism of food alimentation is the rate at which energy is liberated as a result of taking food. Usually 10 to 15% of the caloric value of ingested food will appear as heat in the following three to four hours.

(c) Extra metabolism of exercise is the rate at which energy is liberated as a result of physical activity. The daily activities of primitive people, such as in food and fuel gathering might possibly be represented by a subject walking continually at a speed of 3 to 3½ mph. The metabolic energy produced by such activity is of the order of 100 to 140 kg cal/m²/hr.

(d) Extra metabolism of shivering is the rate at which energy is produced as a result of exposure to cold, due to shivering and muscle tensing. Tests have shown that by this means about 170 kg cal/m²/hr of heat may be produced for a two-hour period while 100 kg cal/m²/hr of heat may be produced for a four-hour period.[20]

From discussions of metabolic energy production and the various activities of the Alacaluf and Yahgan peoples, their average energy production may be assumed as follows:

19 W. H. Forbes, "Definitions, Miscellaneous Figures and Conversion Factors" (in Newburgh, *op. cit.*), p. 449.

20 E. F. Adolph and G. W. Molnar, *Exchanges of Heat and Tolerances to Cold in Men Exposed to Outdoor Weather* (American Journal of Physiology, vol. 146, pp. 507-537, 1946).

Basal metabolism	40 kg cal/m^2/hr
Extra metabolism of food alimentation	Negligible (less than 10 kg cal/m^2/hr)
Extra metabolism of exercise	120 kg cal/m^2/hr
Extra metabolism of shivering	100 kg cal/m^2/hr
Total metabolic energy production	260 kg cal/m^2/hr

Since 10 to 15% of this energy production goes to perform external work (W) while the rest is produced as heat, the total heat production by the Yahgan and Alacaluf peoples as a result of their daily activities might be about 230 kg cal/m^2/hr. This value is probably a reasonable estimate for the total heat production of the average primitive native.

For the computation of the radiation term as applied to primitive men along the Bering Strait migration route several simplifying approximations may be made. First, all radiation terms concerned with short wave solar radiation may be disregarded. The most critical conditions for primitive man would be the winter period in the most northerly section of the Bering Strait migration route. Since the latitudes involved are 60° to 65°N, the amount of solar radiation received in the winter will be small enough to be negligible in the final computations. Second, for purposes of calculation, man in sub-Arctic regions may be thought of as a vertical plane of surface area 1.75 square meters[21] exposed to radiation from two horizontal infinitely extending planes—one, the terrain under him, and the other, the sky over him. A vertical plane will receive one-half the radiation received by a horizontal plane facing the reflecting terrain and sky.[22]

Using the climatic data outlined in the first section, a mean Bering Strait air temperature of 14°F (approximates black-body temperature of surroundings) and a mean temperature at the prevailing cloud level of 14°F (approximates black-body temperature of sky), and the assumptions outlined in the previous paragraph the radiation heat exchange between man and his surroundings may be calculated. This has been done, and it is found that the radiation heat loss (R) is 232 kg cal/m^2/hr. The body loses as much heat to the surroundings by radiation as it produces through metabolism.

Since the two terms (M — W) and (R) appear to balance one another under

21 Man may be approximated by a cylinder of 1.8 meters height and diameter .3 meters. This results in a vertical surface area of about 1.75 square meters. The horizontal surface area can be disregarded.

22 H. F. Blum, *The Solar Heat Load: Its Relationship to Total Heat Load and its Relative Importance in the Design of Clothing* (Journal of Clinical Investigation, vol. 24, no. 5, 1945), p. 716.

the postulated conditions, it is clear that the net loss of heat from the individual to the environment depends upon the amount of conduction-convection and evaporation-convection heat exchange. Expressions for the determination of the rate of conduction-convection and evaporation-convection heat loss from humans under varying conditions have been achieved as a result of physical measurements.[23] Although these expressions are approximate, they provide reasonable values of the rate of heat loss by means of these processes. Charts showing the rate of heat loss by the body by conduction- and evaporation-convection heat exchange for different ambient temperatures, clothing insulation values, and wind velocities have been prepared. For the purposes of calculation, the clothing insulation was varied from .5 to 4 clo. Ambient temperatures were allowed to range from 15°C to —20°C (59°F to —4°F) while the wind velocities were 2, 6, and 12 mph.

The charts, one for each of the wind velocities, are presented in Figure 4. They represent the net rate of heat loss from the body as a result of evaporation-convection and conduction-convection heat exchange for different ambient temperatures and clothing insulation values. It must be remembered that the charts may be used to express the total heat exchange relation only if the metabolic heat production equals the net rate of heat lost by radiation. These conditions will not be found in many cases. When they are not found, it will be necessary to go back to the radiation heat exchange relation and compute the magnitude of this term for inclusion in the over-all heat exchange relationship.

To explain the use of the charts and to determine the survival time of a people with a culture similar to that of the Alacaluf, the rate of heat loss from the body for the temperature, wind, and clothing insulation conditions postulated previously may be determined. Since the average wind velocity in the sub-Arctic is about 10 mph, the chart of Figure 4 prepared for a 12 mph wind velocity should be used. The clothing of the Alacaluf has a maximum insulation value of .5 clo. To use the chart, one must follow down the .5 clo line until the postulated Bering Strait ambient air temperature of 14°F is reached. At this temperature the rate of heat loss is 300 kg cal/m^2/hr.

The amount of heat that may be safely lost from the body over a short period of time depends, of course, on the individual. Belding[24] indicates that up to 80 kg cal/m^2 may be removed from the body without danger. Greater losses than 80 kg cal/m^2 will bring discomfort and finally death. The maximum amount of heat loss before death occurs is not known, but it might well be of the order of 100 to 200 kg cal/m^2. Thus, the tolerance time for primitive people such as the

23 Hardy, *op. cit.*, p. 107.

24 H. S. Belding, "Protection against Dry Cold" (in Newburgh, *op. cit.*), p. 354.

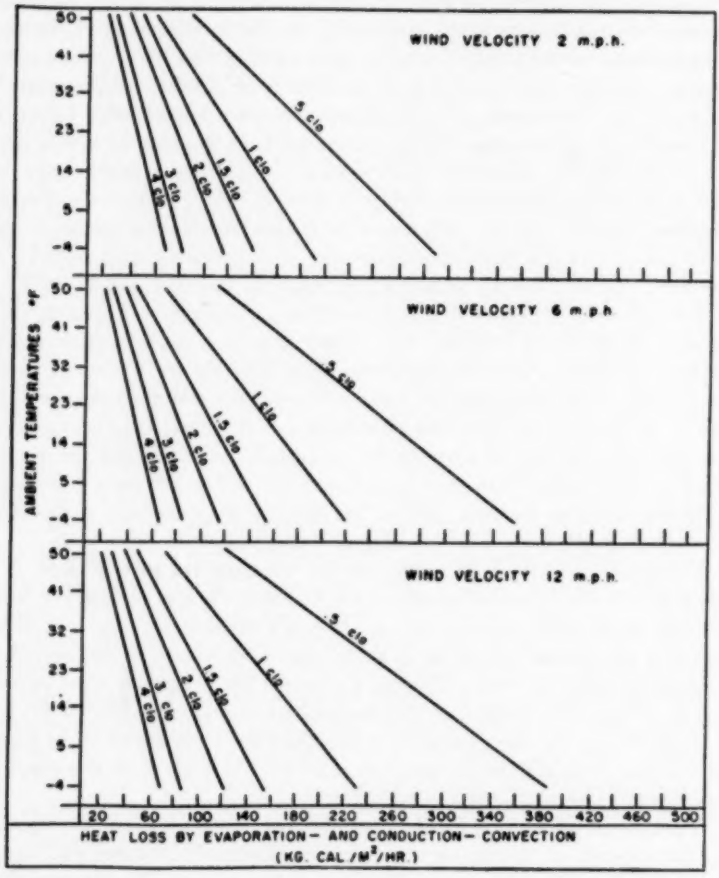

FIG. 4. Heat loss from a human by means of evaporation- and conduction-convection at different air temperatures, wind velocities, and degrees of clothing.

Alacaluf exposed to moderate Bering Strait climatic conditions would appear to be one-half hour or less. This is the amount of time that they could remain outdoors in the search of food and fuel. Any realistic account of the food and fuel gathering processes of primitive peoples would reveal the need to be outdoors for several hours almost every day. Stockpiling or storage of food is not practiced by the Fuegians or many other primitive peoples.

The survival time in the Bering Strait region for tribes with a cultural development similar to that possessed by the Ona can also be determined. Accepting a clothing insulation of 1.5 clo it can be seen from Figure 4 that with an ambient air temperature of 14°F, these people will lose about 120 kg cal/m²/hr. On the basis of the above discussion of tolerance time, these tribes would be able to survive outside in the Bering Strait region somewhat over an hour.

The Eskimo, Chukchee, and Koryak peoples, or any migrating races with similar cultures, would be able to survive generally for unlimited periods of time outdoors under the postulated Bering Strait climatic conditions.

Discussion of Errors

The development of the heat exchange relation and its application to the survival of primitive peoples in sub-Arctic climatic conditions is not exact. Certain assumptions and generalizations have been made in order that quantitative results could be achieved. The results, therefore, indicate only roughly the survival chances of primitive peoples in cold climates.

In developing the heat exchange relation, several approximations were made so that the radiation term could be evaluated. To disregard all short wave solar radiation is permissible for only a short period during the winter. The effect of solar radiation would be to reduce the net radiative heat loss from the body and thus reduce the amount of clothing insulation required for the maintenance of thermal equilibrium. In evaluating the heat exchange relationship, average metabolic energy figures, mainly determined on White subjects in mid-latitudes, were used. The reduction of the insulation value of clothing, due to bellows action resulting from activity, could not be quantitatively included in the calculations. However, for clothing insulation of .5 clo or less, bellows action should be of little importance. The body may be brought more into thermal equilibrium with its environment by reducing the amount of heat stored within the body. Permitting the skin temperature to drop in effect reduces the amount of clothing insulation required to maintain thermal equilibrium, for with a smaller temperature gradient between the skin and the environment less heat transport from the body will occur. A skin temperature of 80.6°F has been assumed in the

previous calculations but it is only approximate and it may, for any individual, be as much as 6° or 7°F in error.

It is clear from a discussion of the assumptions and limitations of the heat exchange relations that Figure 4 and the survival times of the various tribes in the Bering Strait climates are only approximate. However, in the case of the tribes with cultures similar to those of the Alacaluf, Yahgan, or Ona the extremely short tolerance times to those moderate climatic conditions which were postulated would indicate that even if errors of as much as one-hundred percent were present in the calculations, the conclusions would be unchanged.

IV. SUMMARY AND CONCLUSIONS

It has been suggested that the present-day temperature of the Alaskan-Siberian region is probably warmer than at any time since the onset of the last glacial age, with the exception of the climatic optimum. Even then, temperatures probably no more than 3 to 5°F above the present existed in the region. Thus, it is realistic to use the present distribution of climates in this region in an investigation of their physiological limitation on poorly clothed humans. If poorly clothed people could not survive the present-day climates of the Alaskan-Siberian region, survival in the region since the start of the last glacial period might not be possible.

In order to obtain some information concerning the cultural requirements for survival in severe climatic conditions an investigation of the tribes of Tierra del Fuego and certain of the tribes of the Northern Hemisphere was undertaken. This showed that people could exist in regions of severe, but generally above-freezing temperatures, with little, if any, clothing. No primitive, poorly clad races of men exist in regions with mean monthly temperatures below the freezing point. The freezing point might well indicate the limit below which nearly naked man could not exist for long periods of time. An investigation of other regions of the world with mean monthly temperatures below freezing indicated that the inhabitants had to have considerable clothing and adequate housing to survive the severe climatic challenge. A culture somewhat different from that of the Fuegians is possessed by the people living in these cold regions.

The physiological limitation of a cold climate has also been investigated from the viewpoint of heat exchange theory. From a consideration of the different avenues of heat loss from the human body, charts were constructed showing the amount of heat that would be lost by an individual wearing different amounts of clothing under varying climatic conditions. At air temperatures of 14°F, a mean figure for the most optimum Bering Strait conditions, the primitive, nearly naked Alacaluf and Yahgan peoples could survive outdoors one-half hour or less, while

the better equipped Ona could last somewhat over an hour. These tolerance times are thought to be inadequate for the necessary food and fuel gathering processes of these tribes.

The above findings lead to several interesting conclusions. If one assumes that the present Arctic climate is as warm or warmer than any since the last glacial period, then the Arctic region would be effectively closed to the migration of primitive, nearly naked people since before this time. Of course, no proof has been offered that climates during the past 10,000 to 40,000 years have not been warmer than those existing in the Arctic at present. This point must be investigated more thoroughly. To permit migration during the period since the last glacial age one can also suggest that these primitive, poorly clad races had adequate clothing which they later discarded or that they were able to survive in the cold, postglacial climates of the Bering Strait region by remaining within warm shelters all winter except for short food-gathering sorties.

The position of the primitive Fuegians and other migrants with similar cultures in the Western Hemisphere poses an intriguing problem. It would seem that they must have either entered this hemisphere possessing a culture different from that they now have, more adequate clothing and better housing, in order to survive the cold Arctic conditions of the last 15,000 to 25,000 years, and have subsequently lost that cultural complex, or that they entered this hemisphere during a mild climatic period since or perhaps before the last great glacier advance. The selection of the proper alternative in this case must await the interpretation of more detailed archaeological work.

Migration of some primitive, poorly clad races during the postglacial period of "optimum" climatic conditions might be possible if the migrants hurried through the Bering Strait region during a summer period. This might have happened if the primitive migrants were late arrivals, which does not seem to be the case with the Fuegians. However, some primitive, poorly clad recent arrivals in the New World probably do exist.

Although the evidence from archaeology still seems to indicate a recent arrival of man in this hemisphere, the climatic evidence presented above suggests the possibility of a greater antiquity for certain of the more primitive tribes. Because of the limitations of each of these lines of evidence when taken alone, the final answer to the problem must come from a synthesis of further intensive research in both fields of knowledge.

LABORATORY OF CLIMATOLOGY
THE JOHNS HOPKINS UNIVERSITY
SEABROOK, NEW JERSEY

BURYAT RELIGION AND SOCIETY

LAWRENCE KRADER

THE BURYATS are the northernmost Mongol-speaking people, occupying the steppes and river-sides to the east, south, and west of Lake Baikal. They have been subject to acculturative processes since early in the 17th century when Russian explorers and colonialists first came into contact with them, the contact having extended uninterruptedly since then down to the present day. The Buryats are by tradition a pastoral nomadic people with a considerable investment in hunting. They are the northernmost of the complex pastoralists as well; their herds consist of cattle, sheep, goats, horses, and even a scattering of camels; in the same latitudes, but to the west and east are simple herdsmen, whose sole domesticated animal is the reindeer, on the slopes of the Sayan and Altai mountain chains and in the Amur region. The bulk of reindeer breeding, however, is to the north of the Buryat forest-steppe, while the *locus classicus* of complex herding in eastern and northern Asia lies in the steppe to the south, in Mongolia. Buryat mythology assigns a central place to bull-ancestors, horses whose wisdom is superhuman, and sheep endowed with magical properties. During the course of the 19th century, however, they developed sedentary agriculture through Russian contact, while dependence on the hunt for livelihood shrank almost to nothing, at the same time that pastoralism appreciably diminished. The Buryats are approaching the number of 300,000 for the second time in their history; the central tendency in their population density is 2-5 per km sq, which is a typical figure for complex pastoralists.

Buryat social organization is centered around the joint principle of patrilineal descent and agnatic relationship, which they have applied with a consistency matched by few other societies in the world. All Buryats trace descent from a single common ancestor, a mythical figure who may differ from group to group within Buryat society. Thus, a Buryat of Cis-Baikalia (to the west of Baikal) will impute descent from his primary ancestor to all Buryats, while a Trans-Baikal Buryat (to the east and south of Baikal), who traces descent from a different founding ancestor, will do the same. All Buryats are theoretically related by ties of agnatic consanguinity. Moreover, there is a relationship between neighborhood and kinship; the closer the kinship relation between two Buryats, the closer their proximity to each other in residence. A man's closest kin are residents of the

same nomadic kin-village, *ulas*.[1] The lineage, *urag*, comprising a group of related kin-villages, forms the next largest social grouping, and a number of lineages form a clan, *xolbŏn* or *obag*. There are instances of still larger Buryat groupings, among them clan federations, but in these structures the ties of consanguinity are necessarily distant and loose, hence they are organs of political power rather than kinship relationship; but since the manipulation of political power in a state structure is but poorly conceptualized by the Buryats, these confederations and principalities are ephemeral phenomena.

The eastern and southern Buryats have had more stable political organizations than the western, which may be attributed to the greater proximity and closer relationships of the former, the Trans-Baikal Buryats, to the Khalkha Mongols, i.e., the Mongols of Outer Mongolia, who are their neighbors to the south. To this must be added the greater Russian impact on the western than on the eastern Buryats. The closer relationships of the Selenga River and Khori Buryats (the Trans-Baikal Buryats in question) with the Khalkha Mongols may be shown in the religious sphere as well, for these Buryats assign a greater role to Lamaism than do the western and northern Buryats. However, all the Buryats are fundamentally shamanist, despite an overlay of Lamaism; Lamaism has had a lesser but yet perceptible influence on the Cis-Baikal Buryats as well.[2]

We may regard the Buryat clan, lineage, kin-village, and other formations already described as diachronic or vertical organizations of the society, vertical or ascending and descending in time, because they depend for definition on relationship to a given paternal ancestor. Relationship by agnation and hence group membership is therefore determined by establishing a common ancestor and tracing the genealogical line to and from him. In addition to the vertical organization of society, in which time as reckoned in the generation count is the paramount criterion, there is the composition of society by its contemporary members. In the Buryat tradition, all members of the society are distributed in three social classes or strata—the aristocratic, the commoner, and the slave—which may be viewed as the synchronic or horizontal organization of the society.

Through further analysis of the dynamics of Buryat patrilineality, both those modes of social organization, the diachronic and the synchronic, may be derived from a single set of principles. In order to establish these principles we must first

1 Where possible, the transcription of Buryat names and terms has followed Cheremisov's Dictionary (1951). I should like to voice my thanks to Cora DuBois and David Aberle for their criticisms and comments on this paper.

2 Pallas, vol. 3, pt. 1, p. 177 on the political organization of the Khorin Buryats in the 18th century; Georgi, pp. 420-422; for the 19th century, *Khori-Buriaty*, pp. 61-63. Comparative materials in Khangalov, 1894, pp. 102-104, 113, 127-128, 132 and Okladnikov, *passim*.

set on one side the question of the slave stratum, which is formed by capture, and is not a product of the relationships among *consanguinei*. The aristocrats and the commoners between them form the synchronically interrelating members in a group of common descent. (In archaic times, the slaves as a third stratum were subordinated to the first two.) Time as an analytic device is not necessary to establish the required relationship of superiority-subordination, prestige-respect, authority-obedience which exists between the aristocrats and subjects. The relationship is established through personal recognition, through the identification of external marks or signs, sumptuary clothing or the lack of it, and so forth. Nevertheless, both aristocrat and commoner are the descendants of one and the same ancestor, and it is upon the anvil of the common descent group that the pattern of diachronic organization of the society is hammered out. In the diachronic organization, time is an analytic device in the establishment of relationship in consanguinity. The genealogical principle in reckoning kinship is the opposite of the technique of social differentiation, for in establishing kinship it establishes community and group membership. Consanguineal differentiation is established by preferment of the eldest son and the eldest son's line in primogenitary succession. Thus, within the Buryat world, descent lines are ranked according to the seniority of the founder, i.e., the rank-order of birth in relation to founders of other descent lines in the same generation. The senior descent line or lines are the aristocracy, the junior descent lines are the commoners.

As to the two different modes of social organization—by social strata and by lines of descent—even though they may be related through a common set of principles, nevertheless they must be kept separate because with each one a different type of religious phenomenon is associated. Both modes are conceptualized and explicity set forth in Buryat intellectual life, mythology, and religion.

In addition to these two modes, there is a limited amount of craft specialization, notably the shamans and the smiths, *both* of whom have a religious function. Finally there are traces of a dual organization of society—very weak traces—and these will be alluded to only in passing. On the contrary, the dual organization of the spirit world is of paramount importance.

Far older than Lamaism, far more widely distributed among the Buryats, is the somewhat amorphous body of doctrines, beliefs, rites, myths which constitutes the form of shamanism particular to themselves. Buryat religion has been described in several of its aspects in the western anthropological literature: there is an excellent summary article by Demetrius Klements[3] on shamanism and the

3 Klementz, 1924.

spiritual hierachy and ritual; by Garma Sandžeyev[4] on the world-view of the Buryat shamanists; and latterly by Pater Schmidt,[5] which presented the Buryat religion in the aspect of its cult of the supreme being.

There is one problem in the study of Buryat religion which has not been treated hitherto, but which constitutes a classical question in ethnology—the relationship between the social organization and the organization of the religious conceptions of a given people. Durkheim has carried farther than any other ethnologist the study of the relationship between the specific structuring of the world of the sacred and of the profane. His conclusions took on a dialectic form, through the interpenetration of religious phenomena in society and of social phenomena in the religious world. "If religion has engendered all that is essential in society, the idea of society is the soul of religion."[6] As a further expression of this dialectic he postulated that the individual does not innately conceive of the collective ideal of religion, but rather that it is in the school of the collective life of society that the individual learns to realize the religious ideal.[7] The materials toward these formulations were the close parallels between the social structure and the cosmology of given peoples, among them the Zuñi and the Arunta. More recently, a similar correlation was made by Evans-Pritchard when he submitted his monograph on *Witchcraft, Oracles and Magic among the Azande* to re-thinking in the course of a lecture given in 1950. The monograph had first been prepared in the 1930s and its author then started from the premise of the lack of inner coördination of Zande magic, the lack of system or nexus in the magical rites.[8] In later examination of his own researches, Evans-Pritchard developed a more architectonic view of Zande magic religion, and concluded that the entire political hierarchy of Zande society as well as its fabric of kinship is closely reflected in the pattern of magical rites.[9]

In the following pages, no integral picture of Buryat religion will be offered; neither the religious doctrines nor the social organization of the Buryats form a single, coherent, internally consistent whole. Nevertheless, a few formative principles upon which both society and religion rest may be established, and a number of correlations between the two as well. The very number of these correlations is a matter of considerable moment. Moreover, the correlated phenomena lie at the core of their respective spheres. From these considerations it follows that the

4 Sandžeyev, 1927-1928.
5 Schmidt, 1951.
6 Durkheim, p. 599.
7 *Idem*, p. 604.
8 Evans-Pritchard, 1937, p. 540.
9 Evans-Pritchard, 1951, pp. 101-102.

essences of the Buryat worlds of the sacred and profane are twin and coördinate with each other. *In part these coördinations of the two worlds must be derived from that which is implicit in the ethnographic material, but to the greater extent they have been formulated* expressis verbis *by the Buryats themselves,* and are therefore primary data.

The major corpus of these materials covers the period from the 1870s to the mid-1920s, and is the contribution of a number of Russian-educated Buryats, Agapitov, Khangalov, Džamtsarano, Mikhail Bogdanov, and Garma Sandžeyev, working either alone or in collaboration with Russian scholars of the period, the chief of whom were Krol', Klements, and N. Poppe. The work of another fine Buryat thinker, Dordži Banzarov, belongs to an earlier era and another body of literature. The sum of the contributions of these Buryats constitutes a veritable awakening of Buryat intellectual culture of the era. Their written record is extensive, varied, and rich in information, in the form of autobiographic recollections, scientific investigations, and scholarly text-redactions. Their themes are the cosmology, religion, world-view, social life, and folklore of their people. As a group they have accomplished a victory of the human spirit through the simultaneous pursuit of a double path: they were at once the spokesmen for and the recorders of their culture. Within the institutional and linguistic framework of another culture they were able to set down what they observed and learned as Buryats, viewing the same data likewise from the standpoint of the objective disciplines which they later mastered. They lived in two worlds, their native and that of the western academic culture, moving outward from their own culture in the opposite sense to that of the ethnographer.

THE ORGANIZATION OF THE COSMOS BY THREES

The primary element in the coördination of the two worlds is the triple division of the social world, the triple division of the spirit world and the three souls of men.[10] The spirits are the most important features of Buryat religion; they include the deities at the highest level; they are prayed to, sacrificed to, invoked for blessing, and for the exorcism of evil and of sickness, both human and zoötic. The spirits are divided into the higher spirits, the middle, and the lower. The higher spirits, called *tengeri* (plural *tengeriner*) live in heaven, direct and control everything, take care of mankind. These *tengeriner* are in their turn divided into three; the two lower ranks within the superior category functioning as intercessors between man and the highest beings. The spirits of the middle rank, *bōxoldoy,* are considered the spirits of the commoner Buryats (the term is rendered *bōxoldey*

10 Klements and Khangalov, pp. 132-133.

by Castrén[11] with the meaning "spirit in the service of the shamans.") Finally, in the presentation of Klements and Khangalov, there are the spirits of the lowest rank, the spirits of the slaves. Both the middle and lower order of spirits were fully subordinate to the higher order.

The religious doctrine of the triple division in the Buryat cosmology is paralleled by the triple division in the Buryat doctrine of man. Man is conceived as being composed of three parts: the body, *beye,* i.e., the physical organism of man; *amin,* the breath and life-principle resident in the living organism; and *hünehen,* the soul of man.[12]

The soul in turn is submitted in Buryat pneumatology to a triple division, again hierarchized in an upper, a middle, and a lower order. There are two basic descriptions of the Buryat doctrine of the soul, that found in Klements and Khangalov and that of Sandžeyev: both are in agreement on the fundamental traits.[13] Sandžeyev prefaces his remarks on the soul with the note that in one group, the Alar-Buryats, there are numerous souls, but that these are grouped in three chief categories. The first of these is the soul which is housed in man, more precisely, in the skeleton of man, and in the skeleton as a whole, not in any one part. This soul is an invisible copy of the skeleton, and if the skeleton is injured, e.g., if a bone is broken, this soul is harmed. Animals also are in possession of such a soul, and at a sacrifice, a deep concern is to protect the bones of the sacrificial animal. For if the bones of the offering are broken, the soul would be injured and the sacrifice would be rejected by the deity to whom it was offered.[14] This soul corresponds to the lowest soul in the presentation of Klements and Khangalov; one of its attributes is its existence among animals as well as among men.

The second soul of man has the capacity to leave the body and dwell in the world; it can transform itself into a flying thing, such as a wasp or a bee, and can undertake activities of which its possessor is unconscious. In its non-transformed state it is anthropomorphic, however, and its seat is in the organs of the trunk of man: the heart, the liver, the lungs, also the larynx, possibly the blood as well. This soul is readily alarmed and is disposed to flee from danger, e.g., the barking of a dog, and must then be tempted back, especially in the case of the second soul of a child.[15] It is this soul which is invoked, projected and manipu-

11 Castrén, 1857, p. 169.
12 Podgorbunskiy, p. 18.
13 Klements and Khangalov, *loc. cit.;* Sandžeyev, 1927, pp. 578-585.
14 Sandžeyev, 1927, pp. 578-579.
15 *Idem,* pp. 579-581.

lated in shamanistic ceremonies, e.g., in the ceremony for the curing of illness. It corresponds to the middle soul, *dũnda hünehen*, of Klements and Khangalov, who add that this soul corresponds not only to the appearance of man, but to the physical condition of its resident body. If the man owns a horse, the second soul rides the same horse; it wears the same clothes; and most important, continues in this condition after death.[16]

The third soul of Sandžeyev is the highest soul of Klements and Khangalov. It is this soul which is called on death by the chief *tengeri*, who is, according to the Kuda River Buryats, Esege Malãn Tengeri,[17] and its passing marks the end of the mortal span of the man to whom the soul was attached. Aside from this feature, it is little distinguishable from the second soul, for both reflect the physical and social condition of the possessor in health and wealth in this life and during the life beyond.[18]

Petri's data on the Buryat conception of the soul agrees in the main with the foregoing accounts by Klements and Khangalov and by Sandžeyev, adding at the same time certain other attributes.[19] The Buryat has three souls. As to the first, after death this soul (the chief soul) goes upward to the afterworld; there it lives for a term as it had on earth, and then is born again. The second remains on earth as a wandering being after the death of the man; this soul resembles the defunct. At night it amuses itself by frightening people, but in general it is harmless, although sometimes it may attach itself to sick or drunken men and cause much harm. The third soul is called *mũ* (literally bad, evil) by both Khangalov and Klements and Petri.[20] This soul remains with the body, and when the corpse disappears, the body vanishes. The chief soul may have a good or bad character, according to the character of the man in whom it dwelled. If this soul was that of a good man, it is asked by the kinsmen to intercede on their behalf before the *tengeri*. If the deceased had an evil character, then this soul too is evil and dangerous; it is the cause of suffering to children, and of female illnesses among women. It must be placated by propitiatory offerings of sheep.

Petri's observations were drawn from the Kuda River Buryats, a branch of the western Buryats, i.e., among those farthest from the influences of Buddhism and Lamaism. It is therefore interesting to note the spread of the doctrine of rebirth and transmigration as a trait diffused from the Buddhist world. Thor-

16 Klements and Khangalov, p. 133.
17 Agapitov and Khangalov, p. 4.
18 Cf. also Khangalov, 1888, p. 15.
19 Petri, 1925, pp. 34-35.
20 Khangalov and Klements, p. 133; Petri, *loc. cit.*

oughly indigenous traits of the triple division and hierarchization of the souls among these Buryats are substantiated by Petri. His data add another dimension still, the relation between soul worship (propitiatory sacrifices, prayers for intercession) by close kin. M. E. Opler and A. I. Hallowell have reported on the close relations between in-group sentiments and the attitudes of the living toward the dead in Jicarilla and Saulteaux communities. It has been noted that the suppression of the resentments, hatreds, or fears toward living kin takes expression as the projection of these sentiments into the animal embodiments of the spirits of the dead. Among the Buryats an opposite inversion takes place: negative sentiments toward men of ill character continue after their death, for the principal soul has the same attributes as the dead man. But on death the soul acquires greater power; evil souls must therefore be propitiated and not attacked as an evil person would be. In the terms made available by this comparison, the Buryat relationship with the world of life and death is pragmatic, manipulative, and optimistic, for in the struggle to master his fate, there are control-bearing techniques at man's disposal.

It will be recalled that a system of three social estates or classes was found among the Buryats, not during the period of Russian domination but in the immediately preceding era, and this social structure is still preserved in the mythology and cosmology of the Buryats. Not only has this formation been noted by outside observers, it also has been verbalized—this is the crucial consideration—by Buryats themselves. The triple division is arranged in hierarchical form—always highest-middle-lowest. This triple division and hierarchization is then repeated within one of the divisions, for instance, in the three grades of the highest spirits, or in the case of the three souls which together form one of the composite parts of the human being.[21]

The number three and its multiples (9, 90, 99) are constantly recurrent in Buryat mythology and ceremonial. The number of major communial sacrifices, *tailgan*, during the year is three.[22] The bride at the wedding ceremonial feeds the hearth in the husband's tent three times with bits of fat, then sprinkles the garments of the husband's father three more times with fat.[23] The shaman can cure a sick Buryat but has the power to prolong the man's life only for three or nine years—and seven as well.[24] The heavenly spirits, *tengeriner*, are 99 in number; 3 and 9 occur as the combination, division, and order upon which the

21 On hierarchization, cf. Schmidt, pp. 446-448.
22 Potanin, vol. 4, p. 80.
23 *Idem*, p. 34.
24 *Idem*, p. 87.

entire organization of the spirit world is based, as we have already seen, and to which we will return. The number 7 is an intrusive variant on the basic 3-9 system. Only 3 and 9, and not 7, are mentioned in another version of the account of the number of years a man's life can be prolonged.[25]

BURYAT SHAMANISM

The shaman is an ecstatic, a soul-projector, a spirit-master; he has special powers over and special relations to the extra-mundane sphere. These powers he obtains through a special gift, having undergone a specific kind of experience of self-abnegation and vision-quest. Accompanying the shaman-cult are a number of rites and myths relating to the worship of rocks, high places and peculiar features of the landscape; of fire and the hearth. The shaman is often a transvestite who may be of either sex, a highly nervous person, one subject to nervous disorders; his powers, when they are not disposed to harm mankind, are sought in the cure of (psychosomatic) illness. These are general traits of shamanism in its distribution from the Caspian Sea to the Bering Strait. I leave open the question of shamanism in South Asia and in the Western Hemisphere.

In regard to the peoples of the north, Ohlmarks has distinguished two types of shamanism, the "great" shamanism of the peoples of the Arctic littoral and tundra, and the "little" shamanism of the peoples of the taiga and to the south of the taiga. The Arctic shaman is a true aberrant, subject to unmistakable psychically-meditated seizures. To restate Ohlmarks' position, the status of the Arctic shaman is a highly personalized one, for he is outside his society; the means whereby he has achieved his status is likewise highly personalized, for he has established his relationship to the spirit world through his own quest. The sub-Arctic shaman in this view is only a quasi-shaman; characteristically, he is not self-led into his trance but is narcotized, stimulated, or depressed into the shaman's state. He achieves his status through training, indoctrination, the trappings of institutionalization, as opposed to the charisma of the Arctic shaman.[26]

One significance of this contribution is that it views shamanism neither as a single, unanalyzable entity, nor as a phenomenon too complex for generalization, and varying from people to people. Furthermore, it distinguishes that which is constant, such as the trance or fit or seizure, and that which is variable, the method of inducement of the shaman's spell, of which there are roughly two. On the other hand, it oversimplifies the relationship between the shaman and the spirit world, the relationship between the shaman and society, and the relationship

25 Batarov, p. 13.
26 Ohlmarks, 1939, *passim*.

between the shaman and his calling. These may be shown to vary according to the complexity of organization of the society, and the societies of Siberia are simplest in their organization in the extreme north, and become more complex the farther south they dwell. The Chukchi, the Eskimo, the Koryak of the Arctic coast and tundra have the simplest organization and the most personalized role and quest of the shaman. The Yakut, the various Tungusic peoples, and indigenes of the Altai (Turks and Turkicized Samoyeds) have a more complex social organization and the beginnings of institutionalization of shamanism, in terms of a quasi-hereditary transmission of the calling and a professional relationship of master shaman to disciple.[27]

The Buryats are the most complexly organized of the peoples under discussion, are closest to the great civilizations, and are endowed with the most favorable environmental conditions of them all. They continue that form of shamanism which existed among the Mongols during the era of Chingis Khan (13th century). Under Chingis Khan, in the early days of his rule, the head of one descent line, the Ba'arin, in which the specialization of shamanism was hereditary, supplied him with his Arch-priest.[28] The nephew of Chingis Khan was named Yesünge, forming another point of contact between the modern Buryat shamanism and the medieval Mongols. Among the Buryats, the shaman-candidate at the time of his initiation has nine assistants called *yihüngüt*, literally the nine (*yesün/yihün*–nine).[29]

It is necessary to distinguish between the receipt of the shamanist power or gift which descends upon the subject after the death of the shaman-kinsman, and the shamanist status into which the subject is born. The former is quasi-hereditary, and is found chiefly among the people of the taiga; the latter is fully hereditary, and is found chiefly among the medieval Mongols, whose steppe lay to the south of the Buryat, in what is today Outer Mongolia. In addition to this form of shamanism, the fully hereditary, the Buryats also have the quasi-hereditary. In the quasi-hereditary shamanism, the power is not inherent in a descent line, for the kinsman from whom it was transmitted to the shaman in question may have received the gift personally, from no one else in his kin group.[30]

Where the shaman is a member of a shamanist descent line, i.e., where members may become shamans by right of birth, this right is a hereditary speciali-

27 Mikhailovskiy-Wardrop, pp. 85 ff.; Shirokogorov, pp. 74-75; Dyrenkova, pp. 267-268. Harva (pp. 485-496) has contrasted the relative simplicity of the Yakut, Tungus, and Goldi rites of initiation of the shaman with those of the Buryat.

28 *Secret History*, para. 216; Barthold, pp. 391 ff.; Vladimirtsov, pp. 57-60.

29 Personal communication from N. Poppe.

30 Agapitov and Khangalov, p. 44; Sandžeyev, 1928, pp. 977-978.

zation of function in society. And this very specialization of function contributes to the greater complexity of organization of the society. The nascent development of a hereditary priesthood was noted at the turn of the century "which keeps up not only the education of the people, but also the memory of the achievements of their ancestors."[31] This is not to say that personally, as opposed to institutionally and hereditarily endowed shamans, do not exist among the Buryats, but they are of an inferior status, possess an inferior spiritual power, and cannot compete with the hereditary shaman. Sandžeyev has made the categorical statement[32] that the shaman's office is open only to those who have shamans among their ancestors; the ordinary person cannot become a shaman. It may be that Sandžeyev's report, valid for the 1920s, marks the end of the line, the final outcome of the tradition.

Klements, who worked with Khangalov's materials gathered two or three generations earlier, in the last third of the 19th century, qualifies this view: the Buryat shamans (which ones are not specified) believe in their origin from the eagle, son of a *tengeri,* and maintain long genealogies. Although any Buryat can become a shaman if the call descends on him, yet he would find himself unable to compete with other shamans who had a descent line from shamans and a series of shaman ancestors. These ancestral shamans mediate for their client and help him. The hereditary shamans are helped in another way, for they begin to learn their business from infancy on.[33]

These shamans, far from being solely the aberrant, charismatic voyagers in the spirit world as they are in northern Siberia, were a veritable political force among the Buryats. At the end of the 18th century, after about one hundred and fifty years of Russian contact and rule in the area, the shamans of western Baikalia sought to seize the political power for themselves: they had learned the lesson of political combination. However, they did not learn it too well, for the Russians suppressed the revolt and established the office of hereditary prince *(tayši/tayša)* among these Buryats, and thus a lay ruler over all western Buryats was set up for the first time.[34]

The Buryat shaman is as bold in relation to the spirits as he was in political matters; often he is overbold. Once the shamans possessed unlimited power, according to an origin myth, but one mighty shaman bit the cheek of Erlen Khan (the high god of the dead) in a struggle, and their power has since diminished,

31 Klements, p. 15.
32 Sandžeyev, 1928, p. 977.
33 Klements, p. 15.
34 Khangalov, 1894, p. 113.

because of this defiance. Khangalov recounts a great contest between a shaman and an emissary of Esege Malān Tengeri (a chief of the spirits) with much trickery involved and transformations from human to animal form. It is difficult to say who has won, for while the shaman must die eventually and live among the *tengeri*, serving them and interceding with them on behalf of his kin and descendants, nevertheless he has succeeded in prolonging his life.[35]

The shaman's relation with the spirit world is a dual one: he is seized by spirits for his future calling; but he uses the power thus derived to seize the spirits (souls of the dead and emissaries of the high gods) to his own ends. The power of the shaman is a dangerous power; it is ambivalent: the same spirit can be malignant to one person and beneficent to another.[36] Sacrifices and shamanistic rites can effect some control over the activities of the spirits, and eventually the Buryat is thrown back on the power of the shaman who acts with confidence and hopefulness, but not always with success.

Castrén has characterized the *bōxoldoy* as that spirit which is in the service of the shaman. Batarov calls it the spirit of a dead shaman.[37] These spirits or souls (for now they are one) are again ambivalent beings, for they work both good and harm. There are two sources of sickness and death; one, by decision of Erlen Khan (Erlin Khan, Erlen-nomon-khan), the other, by inadvertency. The former source, by decision of the highest order of being, is regular, in the nature of things, a stabilized matter—although it too can be temporarily averted by a shamanistic intervention. The source of disease and death by inadvertency is attributed to the actions of the *bōxoldoy;* and the malignant activities of these beings may be bought off by sacrifices. These *bōxoldoy* have different degrees of power, depending on the power of the shaman during his life. Thus, there is a continuation of the attributes of being from this world to the next among shamans as among ordinary people. More than this, Batarov makes use of the Buryat word *utxa/udxa* in describing how the varying degrees of power of the *bōxoldoy* depend on the power of the shaman during his life. The term *udxa* means primarily essence, significance, but it also means descent, origination (Cheremisov, s. v.); it is rendered as ancestral spirit by Sandžeyev.[38] After death, these shamans remember their kin and help them in sickness and death. The ideas of innateness, immanence, and of inheritance and descent are joined in the Buryat world-view. The shaman's power is not his own, but that of his descent line's, just as the

35 Khangalov, 1890, pp. 19-23. The legend becomes an origin myth of the west Baikal Buryats, the Bulagat and Ekirit.

36 Sandžeyev, 1927, p. 933.

37 Castrén, p. 169; Batarov, p. 10.

38 Sandžeyev, 1928, p. 977.

individual in the Buryat society is not a fully articulated being, but is the momentary incumbent of the earthly existence of his lineage. The demonstration of the last statement rests on analysis of the Buryat pattern of kinship and lineage and the practices of inheritance, and must be left to another occasion.

The shaman has been regarded thus far as a single, undifferentiated kind of being, albeit one with a dual relation to the spirit world, that of seizing and that of being seized, of controlling and of being controlled; and his power has been regarded as single, i.e., ambivalent only in the sense that it is powerful, easily out of control and dangerous to manipulate. This, of course, requires the most careful estimation of his capacities by the shaman; for if he undertakes a task beyond his powers, he may be crushed by the spirit whose control he has lost, and his client crushed as well. However, there are two types of shamans, two sets of relations to the spirit world, and two kinds of shamanist power. The shamans and their spiritual powers and relationships are divided as good and evil, white and black; the good shamans, together with the good powers and the good heavenly spirits not only have a color opposition with the evil, white versus black, they have also an opposing compass direction. The location of the good is in the west, the evil and black in the east.[39] There is a brief intimation in one report[40] that the black shamans are less the masters of and more in the service of the evil spirits. The implication is that man is by his nature more prone to good; that if the shaman were not seized by evil, his control of the spirits would work for the weal of man.

Thus, in addition to the dual relationship of the shaman to the spiritual powers, and the dual source of shamanism (by heredity and by charisma), there is the dual nature of the shamans (white and black), and two kinds of shamanist consecrations as well.[41] There are distinctive terms for both male shamans and female.[42] The white shamans preside at births, adoptions, weddings, illnesses, and deaths; the black shamans are invoked against illness primarily.[43] Only the good shamans are remembered; the bad are gradually forgotten by their people. Every dead shaman—white, i.e.—as far as he possibly can, continues to aid and protect his kinsmen and descendants, and the good shaman is a powerful source of support in the struggle against disease and death. These spirits of past shamans intercede on the part of their kin before the mighty powers of heaven—that is,

39 Agapitov and Khangalov, p. 46 f.; Sandžeyev, 1927, p. 933; Khangalov, 1890, p. 1 f.
40 Agapitov and Khangalov, *loc. cit.*
41 *Idem*, pp. 44-45.
42 *Idem*, p. 41; Sandžeyev, 1928, p. 778.
43 Khangalov, 1890, p. 85.

before the good, white, western spirits and *tengeriner*. Therefore, every locality, every clan, every *ulas* has its separate spirits, the souls of dead shamans and shamanesses who act for their kinsmen-neighbors.[44] On death they usually go to dwell on a neighboring mountain or wood, and are therefore called *xada ūlan ōbögöd*, forest-mountain-ancestors or elders. Each individual kin-village has its own mountain elders to whom offerings and sacrifices are made at communal rites—and individual rites as well. These spirits have significance only for their own people and are not honored by others.[45] The relationship between communal rites and the kinship structure will be examined below. So much for the white shamans.

The black shamans on the other hand are not honored after death; instead they are forgotten. They are not honored during their lifetimes either; they are feared. However, they are brought in during times of crises to intercede before the evil spirits, the eastern *tengeri* and their minions. The Buryat family or kin group faced with a threat or disaster will usually bring in an outside black shaman to shamanize on its behalf. He then returns to his own people after effecting a cure; should one of his own group then die, the black shaman is suspect, for he is thought to have borrowed a soul of one of his own kin to cure that of another. Evil influences are central to the Buryat theory of psychosomatic disease—they distinguish these from such matters as breaking a leg, etc.—and soul-borrowing is central to the theory of curing.[46] There is also a mode of substituting an animal for a human being in the case of illness and death.[47]

One of the most famous black shaman lineages was that of Tarsay. A Buryat of the Tarsay *ulas* came to live in the Kulunkun *ulas* of the Kuda River Buryats, and there married a daughter of a black shaman. From their union were born two sons who likewise became black shamans; from the younger son descended the line of black shamans notorious for their power at the end of the 19th century. In this notice a number of traits are evident. The status of the black shaman is hereditary just as the white is, and is inherent in a descent line. The residence pattern is inverted, for the marriage is matrilocal: the husband is the foreigner, not the wife. The black shamanist power descends in the maternal line to the grandsons, and specifically to the younger son rather than the elder, although the elder too was a black shaman. All the relevant patterns of Buryat life have been inverted in this genealogy and the powers it sustains (and which sustain it):

44 *Idem*, pp. 83-84.
45 *Idem*, p. 84.
46 *Idem*, p. 85; for comparative Yakut material cf. Mikhailovskiy-Wardrop, p. 92.
47 Sandžeyev, 1927, p. 938.

descent, marriage, residence, and succession. The power in this line is double black because the founding ancestor was a stranger and his wife the daughter of a black shaman. A similar account of the foreign origin of a black shaman is found in the genealogy of a then-famous line, the Öbösin on the north shore of Lake Baikal.[48] That the shamanist calling can be inherited in the female line is also attested by Sandžeyev[49] who gives the genealogy of his shaman-informant Batta. This shaman's ancestor in the ninth generation was a foreigner who came to the Buryat country from Mongolia. In this case, the shaman was a white and not a black practitioner.

In both the white and black practice of the shaman's art, the normal patterns and values of Buryat life are inverted, possibly more so in the black than in the white, but that difference is minor. The important consideration is that both dare to call up powers which are dangerous both to the shaman, to his kin, and to his client—kin or not. While the shaman's call is hereditary, that is, is innate in a given descent line, it is arbitrary rather than regular: not everyone in the lineage is called, but only those who are psychologically predisposed. The shaman, because of his nervous and psychic aberrancies, is a difficult person in social life; the Buryats regard the shaman as the worst kind of man.[50] They are so regarded for several reasons. First of all, they are individualists, odd, abnormal, queer, in a society noted for its communal living; second, because they live in a hectic, excited manner, and in a dangerous world which is not the world of everyday life. Because of their life in the mid-world they perform services special to themselves, and are respected, honored, feared for these services.

The Buryat shaman is an anomalous person, even as a shaman, for while he is a psychologically unstable individual, nevertheless his social position has been stabilized as an occupational group and as a descent line. The shaman's social position has led one observer, Petri, to believe that there is actually a schooling to which the shaman is submitted.[51] It is clear that their training and their social status are both more formalized than are the training and status of shamans in the less complex societies of northern Siberia. The shamans among the Buryats have their disciples, and form, not a set of isolated individuals, but a social group apart from the rest of Buryatdom. Sandžeyev has written of the social costs in the training of the shaman, which are defrayed by the entire kin-group.[52] In

48 Khangalov, 1890, pp. 86-87.
49 Sandžeyev, 1928, p. 978.
50 *Idem*, p. 983.
51 Petri, 1923, pp. 18-19.
52 Sandžeyev, 1928, p. 982; cf. also Schmidt, pp. 432-436.

the accounting of his social role, one must reckon in the fear and dysnomia which are embodied in his powers. These powers have their spiritual origin. The shaman repays the social cost with his religious and psychiatric services.

Because the shamans among the Buryats are a group of specialized occupation, and not a group of pure individualists, they have their own ideology of religion, and their own doctrines. Petri[53] depicts their religious thought in terms of doctrinary disputation, religious reform, etc. This statement contains a measure of truth because there is ample testimony to the high degree of religious culture of the Buryats which could only have been produced by a specialized group with sufficient leisure to engage in such speculations. The existence of the Buryat shamans as a specialized social and occupational group is a mark of the complex society and economy of the Buryats.

THE SMITHS, BLACK AND WHITE

Another special occupational group beside the shaman, one also formed in lineages, and in whose line of descent a mystical power inheres is the smith. There is a special group of heavenly spirits called the Smiths (*darxad*), and the practitioners of the craft on earth are descended from one of them—although which varies according to the group supplying the information. There are also two kinds of smiths—good and evil—white and black.[54] The good smith-spirits protect men from the eastern spirits generally, not only the eastern smith-spirits. The chief of the good smith spirits is Božintoy, who had nine sons and one daughter: this western smith-spirit taught men the art of iron-working by the Tunkinsk mountains, and settled there. The smiths of this Buryat group (the Tunkin Buryats) are called *saganī darxad* (*sagan*, white) by virtue of this origin myth.[55] A close variant of this myth is given by Sandžeyev.[56] The white smiths (human) of the Balagan Buryats—both they and the Tunkin are western Buryats—have their own family and lineage spirits, and thus form a group or groups of common descent apart from the rest of the Balagan Buryats. These spirits of the Balagan white smiths have their own *ongon* or spirit represented in the form of a doll. Black smiths are not reported in this group.[57]

The craftsmanship of the Buryats in the working of metals, both iron and silver was admired by the 18th century voyagers among them.[58] Their knowledge

53 Petri, 1923, p. 18.
54 Khangalov, 1890, pp. 38-39.
55 *Idem*, p. 39.
56 Sandžeyev, 1928, p. 539 f.
57 Khangalov, 1890, p. 73.
58 Gmelin, vol. 1, p. 707 f.; Georgi, p. 425; cf. also Sandžeyev, 1928, pp. 541-544.

of the arts have a much higher antiquity, and have fallen into disuse of late with the increase in Russian trade articles among them. Whether there is any relationship between the high development of this art among the Buryats and the spiritual power of the smith has not been established. As Sandžeyev points out, the smith has always had an honored position in Mongol (including Buryat-Mongol) society, appearing as a hero or free warrior in many epics.[59] Again in many steppe-nomad groups of Asia, the smith has enjoyed a tax-free status from the period of Chingis Khan and earlier, down to the present. The Africanist may find here the inverse of his picture of the social position of the smith among the Buryats. The genesis of the relationship of craft specialization to the spirit world aside, there is a similar hereditary structure of the smiths as in the case of the shamans. They not only have their own *ongons* and genealogies, they also have their own protective (western) spirits from whom they trace their descent.[60] Iron and metal work generally are an important part of shamanism, in the paraphernalia of the shaman (metal disks, etc.).

DUAL ORGANIZATION OF THE SPIRIT WORLD AND A POSSIBLE DUAL SOCIAL ORGANIZATION

The division of the spirit world into forces of good and evil forms the basis for division of shamans, of smiths, and of the entire heavenly hierarchy. The highest beings are the *tengeri*, who are 99 in number, divided into 54 western white and good heavenly spirits and 44 eastern, black, and evil; and in addition, there is one, *segēn sedbek* (*segēn*–blue, *sedbek*–?), who is the border-marker, *obo*, between the two, although he is actually a western *tengeri*. The highest *tengeri* is also the oldest, for the principle of seniority applies equally to the sacred and the profane worlds. Although this senior *tengeri*, Khan Tyurmas Tengeri, leads the struggle of the western spirits against the eastern on behalf of man, this figure is not primary in the concern of the Buryat religionists. The principal object of their concern is the second tengeri in order of rank, Esege Malān Tengeri ("Father Bald Tengeri") who is invoked by the shaman in calling up a lesser spirit, the *zayan*. Each of these highest *tengeri* has three sons.[61] What is an evident instance of the projection of social values into the religious world is the constant reference to the many sons of the higher beings, in ritual numbers of 3, 9, and so forth; for this is the chief desire of the Buryat and the chief source of happiness. The sons of the highest beings form a secondary rank of higher

59 Sandžeyev, 1928, p. 538.
60 *Ibid.*
61 Khangalov, 1890, pp. 1-2; Agapitov and Khangalov, pp. 1-2.

being; for the highest deities are the most sacred and rarely reveal their activity; while their children, or more truly, their further descendants are in closer contact with man, being intercessors between earthly inhabitants and the inaccessibly distant deities.[62] Parallel hierarchization of the heavenly beings exists in the case of the eastern spirits.

In the origin myth of the Kuda River Buryats, a descendant of the second supreme being, Esege Malān (his son in one version) is Buxa-Noyon ("Bull Prince"): from Buxa-Noyon all Buryats are descended.[63] However, certain descent lines of the western Buryats trace their ancestry to yet another supreme being, Šara Xasar Tengeri ("Yellow-Cheek-Tengeri"). This being acts as protector for his descendants, who form the Sarat and Xangin clans.[64] In general, all Buryat groups have their own supreme deities, either special to themselves or shared with the rest of the Buryat world; with these deities they stand in a relationship of direct descent and they invoke the deities in time of need. The supreme ancestor of a given group may be one to whom that group attributes the descent of all Buryats.

One such genealogy has been transmitted by Mikhail Bogdanov,[65] himself a Bulagat Buryat (west of Baikal). It is a genealogy set down in the year 1847 by Bogdanov's grandfather, and at that point, in the second ascending generation, breaks with Western tradition, and gives a true Buryat account of the descent line. It originates in the divine ancestor of all Buryats, the being who is part bull, part man, Buxa-Noyon, and his wife a shamaness. It then enumerates eighteen generations to the recorder, Bogdan, the paternal grandfather of M. Bogdanov. It accounts for the ancestor and relative seniority of at least a dozen clans and descent lines, comprising most of the Buryats living west of Lake Baikal.

A more circumstantial account of the same origin myth was recorded in an earlier generation by another man of Buryat origin, Khangalov.[66] Two shamanesses found a baby in an iron cradle beside Lake Baikal; the younger shamaness recognized it as the son of Buxa-Noyon, and they raised him as their own, naming him Bulagat, or more fully, *buxa dorhō oldohon Bulagat*, Bulagat-found-under-the-bull. Bulagat played with a boy who rose out of Lake Baikal, and a meal was prepared for that boy by the shamanesses which put him to sleep (so that he would not disappear into the lake again). They then retained the boy

62 Agapitov and Khangalov, p. 2.
63 *Idem*, pp. 3-4.
64 Khangalov, 1890, pp. 3-4.
65 Bogdanov, pp. 92-93.
66 Khangalov, 1890, pp. 23-24.

and raised him together with Bulagat, naming him Ekirit; each of the shamanesses took one boy for her own, the senior shamaness taking Bulagat, the junior, Ekirit. The descendants of these two boys form the two Buryat peoples of Cis-Baikalia, and each of the descent groups has its own ancestor (and ancestress) and protectors.

In Bogdanov's account of the interrelation of the various segments of Buryat social organization, he divides his people first into Cis- and Trans-Baikal Buryats, which correspond to the western (or northern) and the eastern divisions; the latter he groups collectively as the Khori Buryat. The eastern Buryat are then divided into the Bulagat and Ikhirit (Ekirit), and the latter are placed on the lower course of the Angara River. The Ekirit Buryats are then further divided as the east or left bank and the west or right bank Ekirit.[67] Now plainly this is not exhaustive of the social divisions of the Buryats; on the other hand, the communal hunt of the ancient Buryats was conducted on the basis of a formation in two great wings or divisions. Whether this is an indigenous Buryat trait or one borrowed from the higher military organization of the Mongols to the south cannot be discussed here.[68] Traces of a system of dual organization may be found in many sectors of the Altaic world; e.g., the ancient Mongols were divided in their socio-military organization into two wings, the right *barūn* and the left, *dzūn*. The latter survives to this day as a place name in Inner Asia: Dzungaria, the country of the left (west) hand or left flank. Traces of dual organization may be found also among the Kalmuks, the Turks of Turkestan and of the Altai.

The concept of dual organization of the spirit world as being coördinate with the dual organization of the social world is offered with considerably greater reservation than that of the triple division of the two worlds as mutual reflexes of each other. The triple division of both worlds is a conceptualization of the Buryats themselves, that of the dual organization is not; three is a magic number, two is not; the triple has been more fully explored and conceptualized by the Buryat philosopher.

THE SACRIFICIAL RITES OF THE KIN-COMMUNITIES

The communal sacrifices of the Buryats, *tailgan*, are rites undertaken by kinship groups of varying size, from the *ulas* or village community to the lineage and the clan as a whole, depending on the importance of the rite and its occasion. These sacrifices are distinguished from private rites or those performed by a

67 Bogdanov, p. 39.
68 Vambotsyrenov, p. 32; Khangalov, 1888, p. 6.

family, rites which are called *kirik*.[69] The *tailgan* may be conducted for any one of a number of reasons: as a propitiatory offering to influential spirits which the *ulas* regards as its own; as popular festivals on the occasion of seasonal clan gatherings; in the face of calamity, such as an epidemic or an epizoötic.[70]

The cost of these sacrifices is borne by the participating households; the paraphernalia in addition to the animals to be offered (horses, sheep, cattle) are milk-brandy (*tarasun*), wine, fire for purification of the participants, and the shaman's implements. Having purified themselves by going by or through a fire, the members then proceed to the traditional place of sacrifice, on a hillside near the *ulas*- or the clan-center. Thus far we have two of the more significant accompanying traits of shamanism—the fire-ceremonial and the role of high places.

The Buryat *ulas* has spirits which it does not share with other *ulases,* even though these others may be all related as members of a common lineage and of a common clan. The *spiritus loci* of a given *ulas* are beseeched for protection and support; these spirits are called *bŭmal burxan,* descended or manifest Burkhan. On the other hand, there are certain manifest Burkhans who are worshipped by great numbers, and have lost their significance as local spirits.[71] Certain manifest Burkhans reside in mineral springs and have great powers of healing attributed to them.[72] The term Burkhan occurs throughout the Mongol world as a designation for the Buddha; however, it has become generalized to mean deity, god, spirit. At minor *tailgans* the shamans play no role, at least among the Alar Buryats.[73] Another set of spirits which is particular to a given community and shared by no others is comprised by the souls of dead good shamans to whom their kin and descendants look for guidance and protection.[74]

The great ceremonial or *tailgan* of the Balagan Buryats is that performed to the western Khans (deities just below the Tengeris in rank). It is conducted in the spring, and the entire clan gathers on a mountainside, facing south in a row with the senior and most respected clan-members in the west, the lesser members in the east. (Married women, widows, and girls who have passed menarche are not permitted to participate.)[75] In the course of the ritual, when the sacrifice itself has been completed, the shaman becomes Buxa-Noyon, the Bull-god, and

69 Klements, pp. 14-15.

70 Agapitov and Khangalov, pp. 36 ff.; Klements, *loc. cit.;* Petri, 1925, pp. 5-6.

71 Agapitov and Khangalov, p. 38; Shashkov, p. 24.

72 Shashkov, p. 27.

73 Potanin, vol. 4, p. 80.

74 Khangalov, 1890, pp. 83-84.

75 Cf. Petri, 1925, pp. 15-18. On the other hand, Petri points out that pregnant women can join in one specific *tailgan*.

butts at the participants and at the altars and birch-trees set up by the place of sacrifice. After butting, he goes off in the southwestern (the holiest) direction, and cries nine times on the way. Thus the participants know that he is leaving the ceremonial entirely, and that it is over.[76] Other, lesser ceremonials are built around the driving away of evil spirits from a household by a shaman, and the fire purification ceremony here is central.[77]

Again, in the organization of the *tailgan*, the entire clan is divided into groups of more closely related kin, so that the distribution at the sacrifice is the same as that in the profane world. Each sub-group within the clan or lineage has its own camp, its own fire and sacrificial altar, carries on its own rites, and makes its own animal-offerings.[78] In the genealogy recounted by Bogdanov,[79] he describes the formation of four lineages, *urag*, founded by four brothers, in the seventh ascending generation from himself. Each of the lineages was in existence in the first decades of this century. The great-grandfather of Bogdanov, Marxay, together with his brother Bayanxi, were the founders of two *ulases*, for each had three sons and a rich progeny. However, the two *ulases* were formed only recently, around the turn of the century, and until that time the descendants of Maldžigi had lived in one *ulas* for approximately a century, and lived as a unit, joining in making arrangements for marriage, in communal hospitality and in the *tailgan*. Of late, i.e., since the turn of the century, they rarely came together in the *tailgan* as a group. On the other hand, grandsons of the three brothers, Bogdan, Aleksei, and Osodoy, joined in the *tailgan*.[80] (We have, by the way, an excellent criterion for degree of acculturation in the adoption of Russian names by the Buryats which increases with each generation.) We have thus a detailed account of the close correlation between the organization of the communal sacrifice and the organization of the Buryat kinship system.

There are a number of taboos to which women are submitted. It is clear from the nature of these taboos that women are never fully adopted into their husbands' clans on marriage, unlike the Manchus. They cannot participate in the husband's clan sacrifices, and are barred from the *tailgan* of the natal kin as well from menarche on. Menstruation is regarded by Petri[81] as a mark of ritual uncleanliness. Women are also subject to another taboo. On the birth of a son, a rope of

76 Khangalov, 1890, pp. 116-117.

77 *Idem*, p. 112.

78 Bogdanov, p. 94. A description of a *tailgan* bearing much the same import is to be found in Curtin, pp. 44-45.

79 Bogdanov, pp. 92-93.

80 *Idem*, pp. 92-94.

81 Petri, 1925, pp. 10-11.

horse-hair is stretched across the family tent, and only closely related women can come under the rope to enter the tent, such as the wife's mother, and then only after purification. Women from the farther end of the *ulas* cannot enter; nor can the husband's sister, for she has married out of the kin-group. Petri comments on the Buryat concept of their co-religionists: Tungus women come under the same interdiction as Buryat women—"the shamanistic faith is the same." But Russian women are not subject to this taboo because they fall under a different religious

system. The Buryats regard their religion and that of the Tungus as the same, for they have the same gods in common. Unfortunately, this comment by Petri has not been corroborated elsewhere.

The role of women in the religious practices and concepts of their husbands and fathers may be viewed in a different manner from that of the ritual impurity of menstruation, although the two views complement each other, relative to the lower ritual and social status of Buryat woman. The Buryat kin-community, whether the village, the lineage, or the clan, has spirits which it does share with broader kin groupings. The girl until her marriage, which is a time approximately

coincident with menarche, is a member of her natal kin group, and may participate in its ceremonies. From another point of view, she may participate or not, for her presence does not count—she has no social, religious, or legal personality as yet. When she comes of age, she achieves a certain measure of social personality, but it is ambivalent, for she never fully leaves her father's group, she never fully joins her husband's. She is, therefore, never fully divested of the spiritual influences of her father's line, even though she undergoes the rite of fire-purification as part of the wedding ceremony, a rite which is designed to keep out the antipathetic, foreign spirits. For while these spirits are not per se malignant, they would not combine peacefully with the local spirits. The pregnant woman can attend the *tailgan* of her husband's community, because the spirit of her husband's line is within her, in the child she will bear. Finally there is the one great *tailgan* in which all Buryats, both men and women, join; it is not specific to any one line of descent, or to any particular body of spirits.

Each Buryat descent line has a spirit or spirits particular to itself, inherent within itself. The smallest group, the *ulas* or village-kin-community, has a spirit of its own in addition to that which it shares with other villages as joint members of a lineage; each lineage has its own spiritual relations and powers specific to itself, and others still which it shares with other lineages as joint members of a clan; each clan has its own set of spirits and spiritual relations which it holds, and which in their turn hold the clan apart from all other Buryat clans. Finally there is the entire pantheon of Buryat spirits which govern all things, and which the Buryat shaman seeks to manipulate in the interests of his group and of himself.

In this way we establish the broadest and at the same time the most intricate correlations between the worlds of the sacred and the profane, between the religious order and the order of society. The inner hierarchy of the spirit world parallels the composition and articulation of the Buryat descent lines; and these descent lines are the all-embracing units of Buryat social organization, for they comprise within themselves the class strata and the specialized occupational groups.

THE EXTENDED FAMILY, THE HEARTH-SPIRIT, AND THE WEDDING

The Buryat kin-village is composed of extended families, and these extended families are the microcosms of Buryat society, with all the characteristic features of that society. The extended family too has its own spirits in the form of hearth-spirits and *ongons* which it shares with no other family, while at the same time joining with the other neighboring families in the invocation, exhortation, or pro-

pitiation of spirits venerated in common. The hearth-spirit is the house-deity, the defender of the tent of the family, and each tent or yurt has one.[82]

> This spirit looks like a man, but during his stay in the fire he is small. . . . One must not poke the fire with a knife or anything else that is sharp, for one can thus poke out the eye of the fire spirit accidentally. The householder will then suffer mischance. The fire spirit when he is blind cannot protect the family of the host very well against evil spirits, since he keeps sharp watch that they do not come into the yurt. Moreover, the descendants of the household can become blind in such cases; like fire spirit, so householder.[83]
>
> The son or brother who leaves the family when a family divides, takes with him the fire from the common family hearth, which he lights in the new yurt; here a new fire spirit appears. To the question whence he comes, the Buryat answers: "As many children as you have, just that many does the fire spirit of your hearth have." It is clear that we have in the given case the same principle of the mutual dependence between the condition of the spirit of the fire and that of the householder. Hence the saying exists among the Buryats in regard to a family that has died out, "Their hearth fire has died out."[84]

The fire is the symbol of fertility of the family, and as part of the wedding ceremony, the bride must feed the fire with bits of fat, which she does three times, symbolizing by the enrichment of the fire the enrichment of her own marriage and of her husband's descent line through the birth of many children. The fire in the new yurt has been brought there from the husband's father's yurt by the husband's mother, symbolizing likewise the continuity of the line from father to son.[85] On the birth of a son, the wife bows to the fire again in the Balagan Buryat ritual.[86]

One final relationship between kinship and the religious ritual remains to be described, that of the avunculate. Unlike many other societies which are organized on an agnatic principle, the Buryats do not assign a great role to the relationship between the mother's brother and the sister's son. There is, however, one formalized relationship between the two whereby the sister's son is forbidden entry into the house of the mother's brother if he does not wear a taboo belt. The tradition exists that in olden times there was practiced the strangulation of old men

---

82 Agapitov and Khangalov, p. 4.

83 Account by a Buryat woman to Sandžeyev (1928, p. 967).

84 Sandžeyev, 1928, p. 968.

85 Khangalov, 1898, p. 57; Potanin, vol. 4, p. 34. These reports hold for the Cis-Baikal Buryats. Cf. Krol', p. 72 for similar data on the Trans-Baikal Buryats of the Selenga River valley. Here the bride in the wedding ceremony bows three times to the fire and three times feeds it with fat.

86 Khangalov, 1898, p. 74.

and women. This strangulation was performed by the sister's son (or the daughter's son: the term *zē* has both meanings) by means of a special belt. Before the strangulation, the *zē* offered to his mother's brother a gift of fat. It is this belt which is no longer worn for fear of committing a great sin as well as insult to the mother's brother. At the wedding ceremony, the sister's son continued to offer at the time of the report a gift of fat to the mother's brother.[87]

CONCLUSION

In the foregoing pages the principal features of the Buryat religion in its relationship to the social organization have been set forth. The formative principles upon which Buryat society is based may be reduced to the following: descent in the paternal line from a single common ancestor, and hence the agnatic relationship among all the descendants; the concentric organization of these agnatic kin into extended families grouped into kin-villages, kin-villages grouped into lineages (these are the units of exogamy); lineages grouped into clans, and clans into clan confederations and principalities. The descent groups are collaterally ranked by the principle of primogeniture, which forms the basis of social differentiation into the aristocratic (primogenitary) and the commoner social strata; to this dichotomy, a stratum of slaves was subordinated, forming a triple class-division of society. There exist also descent lines of shamans and smiths, forming groups of specialized occupation.

The joint concepts of division and hierarchization by ranking is the basis for social inequality in a society where all men trace descent generation by generation from a common ancestor. These joint concepts are operative in the two worlds, the sacred and the profane, in application to the triple division of the spirits, of the human soul, of the entire being of man, and of society itself. Each group, from the extended family to the clan, takes its place in the hierarchy of Buryat society, and this hierarchy is extended to include the specialized groups: to each unit of social organization, such as an extended family, kin-village, etc., and to each level of social organization, such as the commoner stratum, there corresponds a unit or level of the spiritual hierarchy. The relations of the group to its own spirits are necessarily more intimate than those of any other group, and this despite the fact that the two groups may have spirits in common by being members of a larger inclusive group, such as villages or lineages in a clan. Therefore, a member of one lineage entering another (such as a woman in a lineage-exogamic marriage) must be purified of the spiritual influences of her

87 *Idem*, pp. 63-64.

natal group-spirits, even though both lineages may have joint spirits, joint sacrifices and myths as members of the same clan. The spirits which are not shared, and therefore those of whose influence the new member must be purified by fire, are not per se malificent; but they are mutually antipathetic. All of earthly Buryatdom is so organized in the conception of each Buryat as to reflect in point-for-point detail the spiritual organization of the cosmos, and the spiritual organization in its turn the social, in mutual interaction.

The organization of society into a series of concentric circles, to which the threefold organization of society and of the cosmos was traced is but one mode. The Buryats in a *tour-de-force* have been able to conceptualize the coördination of a complex social order and an equally complex spiritual order. There is, however, another mode or order, the dual organization of the spirit world into good and evil, black and white, west and east respectively. Moreover, certain types of human beings, the shamans and smiths are likewise so divided (for the sake of simplicity I shall speak only of shamans). The dual classification does not have a real analogue in the social organization; despite certain traces of dual organization of society, no analogy can be drawn because of the overwhelming difference in emphasis between the dual in society and the dual in religion and morality.

If the measure of the cosmic trichotomy was found in the society and its three strata, the measure of the dual cleavage must be sought in the Buryat shaman. The shaman is the repository of these double relations, to the good and to evil; for, regardless of whether the shaman is white or black, he has relations to both sectors of the spirit world. And these very relations to the spirit are reciprocal ones, that of possessing and that of being possessed. The relationships beyond these are also ambivalent: the good spirits protect men from the bad, yet the good spirits decree, execute, and report man's death; and evil spirits in conjunction with the force of the black shaman are invoked to prolong a man's life and stave off imminent death. The shaman's power is not intrinsically evil, any more than the spiritual influence to be purified by fire is malignant; the shaman's power in the one case, and the spiritual influence in the other, are dangerous and hence ambivalent. If they are properly channelized and controlled they are benevolent forces; the shamanist-spiritual power may on the other hand out-reach the shaman and do vast harm. The shaman maintains the most delicate balance between maximalizing and over-reaching, between curing and killing.

The Buryat non-shaman is spiritually neutral, possibly with a slight balance in favor of the good; Buryat society as a whole is similarly appreciated from the viewpoint of morality. The fundamental cleavage of the social plane is that between the aberrant who is the shaman and the forces of conformity embodied

in the organization of the society—indeed the hyper-organization of society may be inferred from the proliferation of modes of social organization of the Buryats. The shaman is the breaking away from the bounds of organization; the shaman is the transcendance by the individual of the social norm. The struggle between good and evil within the shaman as spiritual representative dramatizes the conflict between norm and ab-norm in the shaman as a man. In this attitude toward both the natural and the supernatural environments, the Buryat is daring, forceful, cunning and optimistic. The Buryat shaman and the Buryat layman both know that the parallel journey through life and through the spirit world is fearsome and beset with dangers; all Buryats know the risks and how to overcome them.

The interpretation of the religious and social conceptions of the Buryats as coördinate is not without parallel in world ethnography; but it is rare, especially at the given degree of complexity of the two conceptual spheres. That these spheres have been coördinated at various levels by the Buryats is the achievement of their cosmology and their social thought. They have the means to pursue and support objectification and abstraction in all spheres except that of the shaman himself.

Bibliography

Abbreviations

EO Etnograficheskoe Obozrenie [Ethnographic Review].

IVSOIRGO Izvestiia Vostochno-Sibirskago Otd. Imperatorskago Russkago Geograficheskago Obshchestva [Journal of the East Siberian Section of the Imperial Russian Geographic Society].

JAI Journal of the Anthropological Institute

ZIRGO Zapiski Imperatorskago Russkago Geograficheskago Obshestva [Memoirs of the Imperial Russian Geographic Society]. Ethnographic Section.

ZIV Zapiski Institute Vostokovedeniia [Memoirs of the Oriental Institute].

ZVSOIRGO Zapiski Vostochno-Sibirskago Otd. Imp. Russkago Geograficheskago Obshchestva [Memoirs of the East Siberian Section of the Imperial Russian Geographic Society]. Ethnographic Section.

Agapitov, N. N. and M. N. Khangalov. 1883 *Materially dlia izucheniia shamanstva v Sibiri* [Materials for the Study of Shamanism in Siberia] (IVSOIRGO, vol. 14, pts. 1-2, pp. 1-61).

Banzarov, Dorǒži. 1891 *Chernaia Vera* [The Black Faith] (G. N. Potanin, ed., St. Petersburg).

BARTHOLD, V. V. 1928 *Turkestan Down to the Mongol Invasion* (London: Gibbs Memorial Series 5).

BATAROV, P. P. 1890 *Buriatskie poveriia o bokholdaiakh i anakhaiakh* [Buryat Beliefs Regarding *boxoldoy* and *anaxay*] (ZVSOIRGO, vol. 2, pt. 2, pp. 10-14).

BOGDANOV, M. N. 1926 *Ocherki Istorii Buriat-Mongol'skogo Naroda* [Studies in the History of the Buryat-Mongol People] (Verkhneudinsk).

CASTRÉN, ALEXANDER. 1857 *Versuch einer Burjatischen Sprachlehre* (St. Petersburg).

CHEREMISOV, K. M. 1951 *Buriat-Mongol'sko-Russkii Slovar'* [Buryat-Russian Dictionary] (Moscow).

CURTIN, JEREMIAH. 1909 *A Journey in Southern Siberia* (Boston).

DURKHEIM, EMILE. 1937 *Les Formes Elémentaires de la Vie Religeuse* (Paris).

DYRENKOVA, N. P. 1930 *Poluchenie shamanskogo dara po vozzreniiam turetskikh plemen.* [The Acquisition of the Shaman's Gift in the View of the Turkic Peoples] (Sbornik Muzei Antropologii i Etnografii, vol. 9, pp. 267-291).

EVANS-PRITCHARD, E. E. 1937 *Magic, Witchcraft and Oracles among the Azande* (London).

1951 *Social Anthropology* (London).

GEORGI, J. G. 1776-1880 *Beschreibung aller Nationen des Russischen Reichs* (St. Petersburg).

GMELIN, J. G. 1751-1752 *Reise durch Sibirien von dem Jahre 1733 bis 1743* (Göttingen).

HARVA, UNO. 1938 *Die Religiösen Vorstellungen der Altaischen Völker* (F. F. Communications no. 125).

KHANGALOV, M. N. 1888 *Zegete-Aba, oblava na zverei drevnikh Buriat* [Zegete-Aba, the Hunting Surround of the Ancient Buryats] (IVSOIRGO, vol. 19, no. 3, pp. 1-27).

1890 *Novye Materialy o shamanstve u Buriat* [New Materials on Shamanism among the Buryats] (ZVSOIRGO po Etnografii, vol. 20, pt. 2).

1891 *Neskol'ko dannykh dlia kharakteristiki severnykh Buriat* [Some Data to Characterize the Northern Buryats] (EO, vol. 3, pp. 144-165).

1894 *Iuridicheskie Obychai u Buriat* [Juridical Practices of the Buryats] (EO, vol. 4, pp. 100-142).

1898 *Svadebnye Obriady . . . u Buriat . . . Balaganskago Okruga* [Marriage Rites . . . of the Balagansk District Buryats] (EO, vol. 10, pp. 38-75).

Khori-Buriaty. 1899 [Khori Buryats] (St. Petersburg).

KLEMENTZ, D. 1924 "Buriats" (in *Encyclopaedia of Religion and Ethics,* James Hastings, ed., vol. 3, pp. 1-17).

KLEMENTS, D., AND M. N. KHANGALOV. 1910 *Obshchestvenniya okhoty u severnykh Buriat* [Communal Hunts of the Northern Buryats] (Materialy po Etnografii Rossii, vol. 1, pp. 117-154).

KROL', M. 1894 *Brachnye obriady i obychai u zabaikal'skikh Buriat* [Marriage Rites and Practices of the Trans-Baikal Buryats] (IVSOIRGO, vol. 25, pt. 1, pp. 54-87).

1895 *Okhotnich'e pravo i zverinyi promysel u Zabaikal'skikh Buriat* [Hunting Law and the Trade in Wild Game of the Trans-Baikal Buryats] (IVSOIRGO, vol. 25, pts. 4-5, pp. 51-81).

OHLMARKS, ÅKE. 1939 *Studien zum Problem des Schamanismus* (Lund).

OKLADNIKOV, A. P. 1937 *Ocherki iz istorii zapadnykh Buriat-Mongolov* [Studies in the History of the Western Buryats] (Leningrad).

MIKHAILOVSKIY, V. M. 1892 *Shamanstvo* [Shamanism] (Izvestiia Imp. Obshchestva Liub. Estestvoznaniia, Antropologii i Etnografii, vol. 75. Trudy Etnograf. Otd. vol. 12. Quoted as Mikhailovskiy-Wardrop. Translated by Oliver Wardrop, 1895, JAI, vol. 24, pp. 62-100, 126-158, covering pt. 2 of Mikhailovskiy, pp. 53-115).

PALLAS, P. S. 1771 *Reise durch verschiedene Provinzen des Russischen Reiches* (6 vols., St. Petersburg).

PETRI, B. E. 1923 *Shkola Shamanov u Severnykh Buriat* [The Shamans' School of the Northern Buryats] (Irkutsk).

1925 *Vnutri-Rodovye Otnosheniia u Severnykh Buriat* [Inner-Clan Relations among the Northern Buryats] (Irkutsk).

1928 *Staraya Vera Buriatskogo Naroda* [The Ancient Faith of the Buryats] (Irkutsk).

PODGORBUNSKIY, S. I. 1891 *Idei Buriat shamanistov o dushe* [The Ideas of the Buryat Shamanists about the Soul] (IVSOIRGO, vol. 22, pt. 1, pp. 18-33).

POPPE, N. N. 1925 *Zum Feuerkultus bei den Mongolen* (Asia Major, vol. 2, pp. 130-145).

1934 *Problemy Buriat-Mongol'skogo Literaturovedeniia* [Problems of Buryat Literary Studies] (ZIV, vol. 3, 1935, pp. 13-37).

POTANIN, G. N. 1881-1883 *Ocherki Severo-Zapadnoi Mongolii* [Northwestern Mongolia] (4 vols., St. Petersburg).

SANDŽEYEV (SANDSCHEJEW), GARMA. 1927-1928 *Weltanschauung und Schamanismus der Alaren-Burjaten* (Anthropos, vol. 27, pp. 576-613, 933-955; vol. 28, pp. 538-560, 967-986).

SCHMIDT, P. WILHELM. 1951 *Der Ursprung der Gottesidee* (vol. 10, Munster-Westfallen).

Secret History of the Mongols. 1948 (Erich Haenisch, translator, *Die geheime Geschichte der Mongolen*, Leipzig).

SHASHKOV, S. 1864 *Shamanstvo v Sibiri* [Shamanism in Siberia] (ZIRGO, vol. 2, pp. 1-105).

SHIROKOGOROV, S. M. 1935 *Psychomental Complex of the Tungus* (London).

VAMBOTSYRENOV, ERDYNI. 1890 *Aba-Khaydak, oblava u khorinskikh Buriat* (Aba-Khaydak, the Hunting Surround of the Khorin Buryats) (IVSOIRGO, vol. 21, no. 2, pp. 29-34).

VLADIMIRTSOV, B. Y. 1948 *Le Régime Social des Mongols, Féodalisme Nomade* (M. Carsow, tr., Paris: Russian ed., 1934, *Obshchestvennyi Stroy Mongolov* [Mongol Social Structure], Leningrad-Moscow).

BUREAU OF SOCIAL SCIENCE RESEARCH
THE AMERICAN UNIVERSITY
WASHINGTON, D. C.